

SAFETY DATA SHEET



miRNA Labeling Reagent and Hybridization Kit, Part Number 5190-0408

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

1.1 Product identifier

Product name : miRNA Labeling Reagent and Hybridization Kit, Part Number 5190-0408

CAS number : 10X GE Blocking Agent -
Lyophilized
2X Hi-RPM Hybridization Buffer Not applicable.
Cyanine 3-Cytidine Bisphosphate Not applicable.

Part no. (chemical kit) : 5190-0408

Part no. : 10X GE Blocking Agent 5190-0415
Lyophilized
2X Hi-RPM Hybridization Buffer 5190-0416
Cyanine 3-Cytidine Bisphosphate 5190-0408-P

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

Identified uses : Analytical reagent.
10X GE Blocking Agent Lyophilized 125 µg
2X Hi-RPM Hybridization Buffer 600 µl
Cyanine 3-Cytidine Bisphosphate 27 µl

Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
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 GE Blocking Agent UVCB
Lyophilized
2X Hi-RPM Hybridization Buffer Mixture
Cyanine 3-Cytidine Bisphosphate Mixture

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

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SECTION 2: Hazards identification

2X Hi-RPM

Hybridization Buffer

H315	SKIN CORROSION/IRRITATION	Category 2
H318	SERIOUS EYE DAMAGE/EYE IRRITATION	Category 1
H400	SHORT-TERM (ACUTE) AQUATIC HAZARD	Category 1
H411	LONG-TERM (CHRONIC) AQUATIC HAZARD	Category 2

10X GE Blocking Agent Lyophilized	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.	
2X Hi-RPM Hybridization Buffer	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.	
Cyanine 3-Cytidine Bisphosphate	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.	

Ingredients of unknown toxicity : 2X Hi-RPM Hybridization Buffer
 Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 10 - 30%
 Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
 Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 10 - 30%

Ingredients of unknown ecotoxicity : 2X Hi-RPM Hybridization Buffer
 Contains 15.9% of components with unknown hazards to the aquatic environment

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 : 2X Hi-RPM Hybridization Buffer



Signal word : 10X GE Blocking Agent Lyophilized: No signal word.
 2X Hi-RPM Hybridization Buffer: Danger
 Cyanine 3-Cytidine Bisphosphate: No signal word.

Hazard statements : 10X GE Blocking Agent Lyophilized: No known significant effects or critical hazards.
 2X Hi-RPM Hybridization Buffer: H315 - Causes skin irritation.
 H318 - Causes serious eye damage.
 H410 - Very toxic to aquatic life with long lasting effects.
 Cyanine 3-Cytidine Bisphosphate: No known significant effects or critical hazards.

Precautionary statements

Prevention : 10X GE Blocking Agent Lyophilized: Not applicable.
 2X Hi-RPM Hybridization Buffer: P280 - Wear protective gloves. Wear eye or face protection.
 P273 - Avoid release to the environment.
 Cyanine 3-Cytidine Bisphosphate: Not applicable.

Response : 10X GE Blocking Agent Lyophilized: Not applicable.
 2X Hi-RPM Hybridization Buffer: P391 - Collect spillage.
 P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

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SECTION 2: Hazards identification

	Cyanine 3-Cytidine Bisphosphate	Not applicable.
Storage	: 10X GE Blocking Agent Lyophilized	Not applicable.
	2X Hi-RPM Hybridization Buffer	Not applicable.
	Cyanine 3-Cytidine Bisphosphate	Not applicable.
Disposal	: 10X GE Blocking Agent Lyophilized	Not applicable.
	2X Hi-RPM Hybridization Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Cyanine 3-Cytidine Bisphosphate	Not applicable.
Hazardous ingredients	: 2X Hi-RPM Hybridization Buffer	- Polyoxyethylene octyl phenyl ether
Supplemental label elements	: 10X GE Blocking Agent Lyophilized	Not applicable.
	2X Hi-RPM Hybridization Buffer	Not applicable.
	Cyanine 3-Cytidine Bisphosphate	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: 10X GE Blocking Agent Lyophilized	Not applicable.
	2X Hi-RPM Hybridization Buffer	Not applicable.
	Cyanine 3-Cytidine Bisphosphate	Not applicable.
Special packaging requirements		
Tactile warning of danger	: 10X GE Blocking Agent Lyophilized	Not applicable.
	2X Hi-RPM Hybridization Buffer	Not applicable.
	Cyanine 3-Cytidine Bisphosphate	Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	<table border="1"> <thead> <tr> <th>PBT</th> <th>P</th> <th>B</th> <th>T</th> <th>vPvB</th> <th>vP</th> <th>vB</th> </tr> </thead> <tbody> <tr> <td>10X GE Blocking Agent Lyophilized</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>No</td> <td>N/A</td> <td>N/A</td> <td>No</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> </tr> </tbody> </table>	PBT	P	B	T	vPvB	vP	vB	10X GE Blocking Agent Lyophilized							No	N/A	N/A	No	N/A	N/A	N/A
PBT	P	B	T	vPvB	vP	vB																	
10X GE Blocking Agent Lyophilized																							
No	N/A	N/A	No	N/A	N/A	N/A																	
		2X Hi-RPM Hybridization Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.																				
		Cyanine 3-Cytidine Bisphosphate	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.																				
Other hazards which do not result in classification	:	10X GE Blocking Agent Lyophilized	None known.																				
		2X Hi-RPM Hybridization Buffer	Contains one or more substances considered to have endocrine-disrupting properties.																				
		Cyanine 3-Cytidine Bisphosphate	None known.																				
Substances identified as having endocrine disruptor properties	:	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>Impact</th> </tr> </thead> <tbody> <tr> <td>2X Hi-RPM Hybridization Buffer Polyoxyethylene octyl phenyl ether</td> <td>Environment</td> </tr> </tbody> </table>	Ingredient name	Impact	2X Hi-RPM Hybridization Buffer Polyoxyethylene octyl phenyl ether	Environment																	
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SECTION 3: Composition/information on ingredients

3.1 Substances : 10X GE Blocking Agent Lyophilized UVCB
 2X Hi-RPM Hybridization Buffer Mixture
 Cyanine 3-Cytidine Bisphosphate Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
10X GE Blocking Agent Lyophilized					
DNA	-	100	Not classified.	-	[1]
2X Hi-RPM Hybridization Buffer					
Lithium chloride	EC: 231-212-3 CAS: 7447-41-8	≤12	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319	ATE [Oral] = 526 mg/kg ATE [Dermal] = 1488 mg/kg	[1]
Lithium dodecyl sulphate	EC: 218-058-2 CAS: 2044-56-6	≤6.4	Flam. Sol. 1, H228 Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412	ATE [Oral] = 500 mg/kg ATE [Inhalation (dusts and mists)] = 1.5 mg/l Eye Dam. 1, H318: C ≥ 20% Eye Irrit. 2, H319: 10% ≤ C < 20%	[1]
Polyoxyethylene octyl phenyl ether	CAS: 9002-93-1	≤6.4	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1800 mg/kg M [Acute] = 10 M [Chronic] = 1	[1] [2]
Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-(trimethylsilyl)oxy]-1-disiloxanyl]propyl] ether	CAS: 134180-76-0	≤3	Acute Tox. 4, H332 Eye Irrit. 2, H319 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above.	ATE [Inhalation (vapours)] = 11 mg/l	[1]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type
 10X GE Blocking Agent Lyophilized [1] Constituent
 2X Hi-RPM Hybridization Buffer [1] Substance classified with a health or environmental hazard
 [2] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: 10X GE Blocking Agent Lyophilized	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	2X Hi-RPM Hybridization Buffer	Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
	Cyanine 3-Cytidine Bisphosphate	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.
Inhalation	: 10X GE Blocking Agent Lyophilized	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.
	2X Hi-RPM Hybridization Buffer	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Cyanine 3-Cytidine Bisphosphate	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: 10X GE Blocking Agent Lyophilized	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	2X Hi-RPM Hybridization Buffer	Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Cyanine 3-Cytidine Bisphosphate	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: 10X GE Blocking Agent Lyophilized	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	2X Hi-RPM Hybridization Buffer	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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

SECTION 4: First aid measures

dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Cyanine 3-Cytidine Bisphosphate

Protection of first-aiders : 10X GE Blocking Agent Lyophilized
2X Hi-RPM Hybridization Buffer

Cyanine 3-Cytidine Bisphosphate

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.

No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : 10X GE Blocking Agent Lyophilized
2X Hi-RPM Hybridization Buffer
Cyanine 3-Cytidine Bisphosphate

No known significant effects or critical hazards.

Causes serious eye damage.

No known significant effects or critical hazards.

Inhalation : 10X GE Blocking Agent Lyophilized
2X Hi-RPM Hybridization Buffer
Cyanine 3-Cytidine Bisphosphate

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Skin contact : 10X GE Blocking Agent Lyophilized
2X Hi-RPM Hybridization Buffer
Cyanine 3-Cytidine Bisphosphate

No known significant effects or critical hazards.

Causes skin irritation.

No known significant effects or critical hazards.

Ingestion : 10X GE Blocking Agent Lyophilized
2X Hi-RPM Hybridization Buffer
Cyanine 3-Cytidine Bisphosphate

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : 10X GE Blocking Agent Lyophilized
2X Hi-RPM Hybridization Buffer

No specific data.

Adverse symptoms may include the following:

pain
watering
redness

Cyanine 3-Cytidine

No specific data.

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SECTION 4: First aid measures

		Bisphosphate	
Inhalation	:	10X GE Blocking Agent Lyophilized	No specific data.
		2X Hi-RPM Hybridization Buffer	No specific data.
		Cyanine 3-Cytidine Bisphosphate	No specific data.
Skin contact	:	10X GE Blocking Agent Lyophilized	No specific data.
		2X Hi-RPM Hybridization Buffer	Adverse symptoms may include the following: pain or irritation redness blistering may occur
		Cyanine 3-Cytidine Bisphosphate	No specific data.
Ingestion	:	10X GE Blocking Agent Lyophilized	No specific data.
		2X Hi-RPM Hybridization Buffer	Adverse symptoms may include the following: stomach pains
		Cyanine 3-Cytidine Bisphosphate	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	10X GE Blocking Agent Lyophilized	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		2X Hi-RPM Hybridization Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		Cyanine 3-Cytidine Bisphosphate	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	10X GE Blocking Agent Lyophilized	No specific treatment.
		2X Hi-RPM Hybridization Buffer	No specific treatment.
		Cyanine 3-Cytidine Bisphosphate	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	10X GE Blocking Agent Lyophilized	Use an extinguishing agent suitable for the surrounding fire.
		2X Hi-RPM Hybridization Buffer	Use an extinguishing agent suitable for the surrounding fire.
		Cyanine 3-Cytidine Bisphosphate	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	10X GE Blocking Agent Lyophilized	None known.
		2X Hi-RPM Hybridization Buffer	None known.
		Cyanine 3-Cytidine Bisphosphate	None known.

5.2 Special hazards arising from the substance or mixture

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SECTION 5: Firefighting measures

Hazards from the substance or mixture	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer	No specific fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products	Cyanine 3-Cytidine Bisphosphate : 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	In a fire or if heated, a pressure increase will occur and the container may burst. Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides No specific data.

5.3 Advice for firefighters

Special precautions for fire-fighters	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	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. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	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. 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. 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 GE Blocking Agent Lyophilized	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	2X Hi-RPM Hybridization Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Cyanine 3-Cytidine Bisphosphate	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.
For emergency responders	: 10X GE Blocking Agent Lyophilized	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	2X Hi-RPM Hybridization Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Cyanine 3-Cytidine Bisphosphate	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 GE Blocking Agent Lyophilized	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
2X Hi-RPM Hybridization Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
Cyanine 3-Cytidine Bisphosphate	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 GE Blocking Agent Lyophilized	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
	2X Hi-RPM Hybridization Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. May be harmful to the environment if released. Dispose of spillages under controlled conditions.
	Cyanine 3-Cytidine Bisphosphate	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.

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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 GE Blocking Agent Lyophilized	Put on appropriate personal protective equipment (see Section 8).
	2X Hi-RPM Hybridization Buffer	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Cyanine 3-Cytidine Bisphosphate	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: 10X GE Blocking Agent Lyophilized	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	2X Hi-RPM Hybridization Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Cyanine 3-Cytidine Bisphosphate	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 GE Blocking Agent Lyophilized	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	2X Hi-RPM Hybridization Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for

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Cyanine 3-Cytidine Bisphosphate	incompatible materials before handling or use. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
2X Hi-RPM Hybridization Buffer E1	100 tonne	200 tonne

7.3 Specific end use(s)

- | | | |
|---|--|---|
| Recommendations | : 10X GE Blocking Agent Lyophilized
2X Hi-RPM Hybridization Buffer
Cyanine 3-Cytidine Bisphosphate | Industrial applications, Professional applications.
Industrial applications, Professional applications.
Industrial applications, Professional applications. |
| Industrial sector specific solutions | : 10X GE Blocking Agent Lyophilized
2X Hi-RPM Hybridization Buffer
Cyanine 3-Cytidine Bisphosphate | Not available.
Not available.
Not available. |

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

None known.

- Recommended monitoring procedures** : 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

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SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
2X Hi-RPM Hybridization Buffer Lithium chloride	DNEL	Long term Oral	7.32 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	10 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	10 mg/m ³	Workers	Systemic
	DNEL	Short term Oral	21.96 mg/ kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	30 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	30 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	50 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	73.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	73.2 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	100 mg/kg bw/day	Workers	Systemic
Lithium dodecyl sulphate	DNEL	Long term Inhalation	2.26 mg/m ³	General population	Systemic
	DNEL	Long term Oral	2.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	7.6 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	260 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	433.3 mg/ kg bw/day	Workers	Systemic

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

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SECTION 8: Exposure controls/personal protection

- 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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : 10X GE Blocking Agent Lyophilized Solid. [lyophilised]
2X Hi-RPM Hybridization Buffer Liquid.
Cyanine 3-Cytidine Bisphosphate Liquid.
- Colour** : 10X GE Blocking Agent Lyophilized Not available.
2X Hi-RPM Hybridization Buffer Not available.
Cyanine 3-Cytidine Bisphosphate Not available.
- Odour** : 10X GE Blocking Agent Lyophilized Not available.
2X Hi-RPM Hybridization Buffer Not available.
Cyanine 3-Cytidine Bisphosphate Not available.
- Odour threshold** : 10X GE Blocking Agent Lyophilized Not available.
2X Hi-RPM Hybridization Buffer Not available.
Cyanine 3-Cytidine Bisphosphate Not available.
- Melting point/freezing point** : 10X GE Blocking Agent Lyophilized Not available.
2X Hi-RPM Hybridization Buffer Not available.
Cyanine 3-Cytidine Bisphosphate 0°C
- Initial boiling point and boiling range** : 10X GE Blocking Agent Lyophilized Not available.
2X Hi-RPM Hybridization Buffer Not available.
Cyanine 3-Cytidine Bisphosphate 100°C

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SECTION 9: Physical and chemical properties

Flammability : 10X GE Blocking Agent Not available.
Lyophilized
2X Hi-RPM Hybridization Not applicable.
Buffer
Cyanine 3-Cytidine Not applicable.
Bisphosphate

Upper/lower flammability or explosive limits : 10X GE Blocking Agent Not applicable.
Lyophilized
2X Hi-RPM Hybridization Not available.
Buffer
Cyanine 3-Cytidine Not available.
Bisphosphate

Flash point :

Ingredient name	Closed cup		Open cup	
	°C	Method	°C	Method
2X Hi-RPM Hybridization Buffer				
Polyoxyethylene octyl phenyl ether	251			

Auto-ignition temperature :

Ingredient name	°C	Method
2X Hi-RPM Hybridization Buffer		
Lithium dodecyl sulphate	366	

Decomposition temperature : 10X GE Blocking Agent Not available.
Lyophilized
2X Hi-RPM Hybridization Not available.
Buffer
Cyanine 3-Cytidine Not available.
Bisphosphate

pH : 10X GE Blocking Agent Not available.
Lyophilized
2X Hi-RPM Hybridization 6.1
Buffer
Cyanine 3-Cytidine Not available.
Bisphosphate

Viscosity : 10X GE Blocking Agent Not applicable.
Lyophilized
2X Hi-RPM Hybridization Not available.
Buffer
Cyanine 3-Cytidine Not available.
Bisphosphate

Solubility(ies) :

Media	Result
10X GE Blocking Agent	
Lyophilized	
water	Soluble
2X Hi-RPM Hybridization Buffer	
water	Soluble
Cyanine 3-Cytidine	
Bisphosphate	
methanol	Soluble
diethyl ether	Soluble
acetone	Soluble
water	Soluble

Partition coefficient: n-octanol/water : 10X GE Blocking Agent Not available.
Lyophilized
2X Hi-RPM Hybridization Not applicable.
Buffer
Cyanine 3-Cytidine Not applicable.
Bisphosphate

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SECTION 9: Physical and chemical properties

Vapour pressure	Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
		mm Hg	kPa	Method	mm Hg	kPa	Method
	2X Hi-RPM Hybridization Buffer						
	water	23.8	3.2		92.258	12.3	
	Polyoxyethylene octyl phenyl ether	0.997581	0.13				
	Cyanine 3-Cytidine Bisphosphate						
	water	23.8	3.2		92.258	12.3	

Evaporation rate : 10X GE Blocking Agent Lyophilized Not available.
 2X Hi-RPM Hybridization Buffer Not available.
 Cyanine 3-Cytidine Bisphosphate Not available.

Relative density : 10X GE Blocking Agent Lyophilized Not available.
 2X Hi-RPM Hybridization Buffer Not available.
 Cyanine 3-Cytidine Bisphosphate Not available.

Vapour density : 10X GE Blocking Agent Lyophilized Not applicable.
 2X Hi-RPM Hybridization Buffer Not available.
 Cyanine 3-Cytidine Bisphosphate Not available.

Explosive properties : 10X GE Blocking Agent Lyophilized Not available.
 2X Hi-RPM Hybridization Buffer Not available.
 Cyanine 3-Cytidine Bisphosphate Not available.

Oxidising properties : 10X GE Blocking Agent Lyophilized Not available.
 2X Hi-RPM Hybridization Buffer Not available.
 Cyanine 3-Cytidine Bisphosphate Not available.

Particle characteristics

Median particle size : 10X GE Blocking Agent Lyophilized Not available.
 2X Hi-RPM Hybridization Buffer Not applicable.
 Cyanine 3-Cytidine Bisphosphate Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	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. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	Under normal conditions of storage and use, hazardous reactions will not occur. 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 GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	No specific data. No specific data. No specific data.
10.5 Incompatible materials	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2X Hi-RPM Hybridization Buffer Lithium chloride	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5.57 mg/l	4 hours
	LD50 Dermal	Rabbit	1629 mg/kg	-
	LD50 Dermal	Rat	1488 mg/kg	-
	LD50 Oral	Rat	526 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	1800 mg/kg	-
Lithium dodecyl sulphate				
Polyoxyethylene octyl phenyl ether				

Acute toxicity estimates

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SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
2X Hi-RPM Hybridization Buffer					
2X Hi-RPM Hybridization Buffer	2598.7	10804.4	N/A	565.6	23.1
Lithium chloride	526	1488	N/A	N/A	N/A
Lithium dodecyl sulphate	500	N/A	N/A	N/A	1.5
Polyoxyethylene octyl phenyl ether	1800	N/A	N/A	N/A	N/A
Oxirane, 2-methyl-, polymer with oxirane, mono[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyloxy)-1-disiloxanyl]propyl] ether	N/A	N/A	N/A	11	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2X Hi-RPM Hybridization Buffer					
Lithium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 mg	-
Polyoxyethylene octyl phenyl ether	Skin - Mild irritant	Rabbit	-	24 hours 500 uL	-

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2X Hi-RPM Hybridization Buffer Lithium dodecyl sulphate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : 10X GE Blocking Agent Lyophilized Not available.
2X Hi-RPM Hybridization Buffer Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Cyanine 3-Cytidine Not available.
Bisphosphate

Potential acute health effects

SECTION 11: Toxicological information

Inhalation	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	No known significant effects or critical hazards. Causes skin irritation. No known significant effects or critical hazards.
Eye contact	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	No known significant effects or critical hazards. Causes serious eye damage. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	No specific data. No specific data. No specific data.
Ingestion	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	No specific data. Adverse symptoms may include the following: stomach pains No specific data.
Skin contact	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	No specific data. Adverse symptoms may include the following: pain or irritation redness blistering may occur No specific data.
Eye contact	: 10X GE Blocking Agent Lyophilized 2X Hi-RPM Hybridization Buffer Cyanine 3-Cytidine Bisphosphate	No specific data. Adverse symptoms may include the following: pain watering redness 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.

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SECTION 11: Toxicological information

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: 10X GE Blocking Agent Lyophilized	No known significant effects or critical hazards.
	2X Hi-RPM Hybridization Buffer	No known significant effects or critical hazards.
	Cyanine 3-Cytidine Bisphosphate	No known significant effects or critical hazards.
Carcinogenicity	: 10X GE Blocking Agent Lyophilized	No known significant effects or critical hazards.
	2X Hi-RPM Hybridization Buffer	No known significant effects or critical hazards.
	Cyanine 3-Cytidine Bisphosphate	No known significant effects or critical hazards.
Mutagenicity	: 10X GE Blocking Agent Lyophilized	No known significant effects or critical hazards.
	2X Hi-RPM Hybridization Buffer	No known significant effects or critical hazards.
	Cyanine 3-Cytidine Bisphosphate	No known significant effects or critical hazards.
Reproductive toxicity	: 10X GE Blocking Agent Lyophilized	No known significant effects or critical hazards.
	2X Hi-RPM Hybridization Buffer	No known significant effects or critical hazards.
	Cyanine 3-Cytidine Bisphosphate	No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

10X GE Blocking Agent Lyophilized	Not available.
2X Hi-RPM Hybridization Buffer	Adverse symptoms may include the following: May cause skin sensitisation.
Cyanine 3-Cytidine Bisphosphate	Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2X Hi-RPM Hybridization Buffer Lithium chloride	Acute EC50 112 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 249 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 17000 µg/l Fresh water	Fish - Ptychocheilus lucius - Swim-up	96 hours
	Acute NOEC 25 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute NOEC 63.4 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute NOEC 59.4 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Polyoxyethylene octyl phenyl	Acute LC50 5.85 mg/l Fresh water	Crustaceans - Ceriodaphnia	48 hours

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SECTION 12: Ecological information

ether	Acute LC50 11.2 mg/l Fresh water	rigaudi - Neonate Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours

12.2 Persistence and degradability

Not available.

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

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2X Hi-RPM Hybridization Buffer			
Polyoxyethylene octyl phenyl ether	4.86	-	high

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
10X GE Blocking Agent Lyophilized DNA	No	N/A	N/A	No	N/A	N/A	N/A

12.6 Endocrine disrupting properties

2X Hi-RPM Hybridization Buffer Contains one or more substances considered to have endocrine-disrupting properties.

12.7 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.


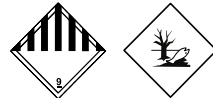

Packaging

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SECTION 13: Disposal considerations

- 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** : Dispose of material(s) and residues under controlled conditions. 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
14.1 UN number or ID number	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyoxyethylene octyl phenyl ether)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyoxyethylene octyl phenyl ether)	Environmentally hazardous substance, liquid, n.o.s. (Polyoxyethylene octyl phenyl ether)
14.3 Transport hazard class(es)	9 	9 	9 
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.

Additional information

Remarks: De minimis quantities

- ADR/RID** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Hazard identification number 90
Limited quantity 5 L
Special provisions 274, 335, 601, 375
Tunnel code (-)
- IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Emergency schedules F-A, S-F
Special provisions 274, 335, 969
- IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
Quantity limitation Passenger and Cargo Aircraft: 450 L. Packaging instructions: 964. Cargo Aircraft Only: 450 L. Packaging instructions: 964. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y964.
Special provisions A97, A158, A197, A215
- 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.

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SECTION 14: Transport information

14.7 Transport in bulk according to IMO instruments : 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](#)

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
2X Hi-RPM Hybridization Buffer Polyoxyethylene octyl phenyl ether	Endocrine disrupting properties for environment	Listed	42	7/3/2017

[Substances of very high concern](#)

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
2X Hi-RPM Hybridization Buffer Polyoxyethylene octyl phenyl ether	Endocrine disrupting properties for environment	Recommended	ED/169/2012	7/3/2017

[Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles](#)

Not listed.

Label : 10X GE Blocking Agent Lyophilized
2X Hi-RPM Hybridization Buffer
Cyanine 3-Cytidine Bisphosphate

Not applicable.
Not applicable.
Not applicable.

[Other EU regulations](#)

Industrial emissions (integrated pollution prevention and control) - Air : Listed

[Ozone depleting substances \(1005/2009/EU\)](#)

Not listed.

[Prior Informed Consent \(PIC\) \(649/2012/EU\)](#)

Not listed.

[Persistent Organic Pollutants](#)

Not listed.

[Seveso Directive](#)

This product is not controlled under the Seveso Directive.

[Danger criteria](#)

Category
2X Hi-RPM Hybridization Buffer E1

[International regulations](#)

[Chemical Weapon Convention List Schedules I, II & III Chemicals](#)

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SECTION 15: Regulatory information

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Eurasian Economic Union	: Russian Federation inventory: Not determined.
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms	: ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
2X Hi-RPM Hybridization Buffer Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements

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SECTION 16: Other information

<p>2X Hi-RPM Hybridization Buffer H228 H302 H312 H315 H318 H319 H332 H335 H400 H410 H411 H412</p>	<p>Flammable solid. Harmful if swallowed. Harmful in contact with skin. Causes skin irritation. Causes serious eye damage. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.</p>
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[Full text of classifications \[CLP/GHS\]](#)

<p>2X Hi-RPM Hybridization Buffer Acute Tox. 4 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Eye Dam. 1 Eye Irrit. 2 Flam. Sol. 1 Skin Irrit. 2 STOT SE 3</p>	<p>ACUTE TOXICITY - Category 4 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE SOLIDS - Category 1 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3</p>
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Date of issue/ Date of revision : 21/11/2022

Date of previous issue : No previous validation

Version : 1

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