Conforms to Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals

SAFETY DATA SHEET

Agilent Technologies

Agilent Oligo aCGH Hybridization Kit (100), Part Number 5188-5380

Section 1. Identification

Product identifier : Agilent Oligo aCGH Hybridization Kit (100), Part Number 5188-5380

Part no. (chemical kit) : 5188-5380

Part no. : 2X Hi-RPM Hybridization Buffer 5188-6420
10X aCGH Blocking Agent 5190-0405

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

Identified uses : Analytical reagent.
2X Hi-RPM Hybridization Buffer 25 ml
10X aCGH Blocking Agent 100 reactions

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

2X Hi-RPM Hybridization Buffer

H315	SKIN CORROSION/IRRITATION - Category 2
H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
H372	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
H400	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
H411	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

2X Hi-RPM Hybridization Buffer: Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 15.9%

GHS label elements

Hazard pictograms : 2X Hi-RPM Hybridization Buffer

Signal word : 2X Hi-RPM Hybridization Buffer: DANGER
10X aCGH Blocking Agent: No signal word.

Hazard statements : 2X Hi-RPM Hybridization Buffer:
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H372 - Causes damage to organs through prolonged or repeated exposure.
H400 - Very toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.
10X aCGH Blocking Agent: No known significant effects or critical hazards.

Precautionary statements

Section 2. Hazard(s) identification

Prevention	:	2X Hi-RPM Hybridization Buffer	P280 - Wear protective gloves. Wear eye or face protection. P273 - Avoid release to the environment. P260 - Do not breathe vapour. P270 - Do not eat, drink or smoke when using this product.
		10X aCGH Blocking Agent	Not applicable.
Response	:	2X Hi-RPM Hybridization Buffer	P391 - Collect spillage.
		10X aCGH Blocking Agent	Not applicable.
Storage	:	2X Hi-RPM Hybridization Buffer	Not applicable.
		10X aCGH Blocking Agent	Not applicable.
Disposal	:	2X Hi-RPM Hybridization Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		10X aCGH Blocking Agent	Not applicable.

Supplemental label elements

Additional warning phrases	:	2X Hi-RPM Hybridization Buffer	Not applicable.
		10X aCGH Blocking Agent	Not applicable.
Other hazards which do not result in classification	:	2X Hi-RPM Hybridization Buffer	None known.
		10X aCGH Blocking Agent	None known.

Section 3. Composition and ingredient information

Substance/mixture	:	2X Hi-RPM Hybridization Buffer	Mixture
		10X aCGH Blocking Agent	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
2X Hi-RPM Hybridization Buffer		
Lithium chloride	≤12	7447-41-8
Polyoxyethylene octyl phenyl ether	≤6.4	9002-93-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	:	2X Hi-RPM Hybridization Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
		10X aCGH Blocking Agent	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.

Section 4. First aid measures

Inhalation

: 2X Hi-RPM Hybridization Buffer

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. 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.

10X aCGH Blocking Agent

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.

Skin contact

: 2X Hi-RPM Hybridization Buffer

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

10X aCGH Blocking Agent

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion

: 2X Hi-RPM Hybridization Buffer

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 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 following exposure or if feeling unwell. 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 aCGH Blocking Agent

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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

: 2X Hi-RPM Hybridization Buffer

Causes serious eye irritation.

10X aCGH Blocking Agent

No known significant effects or critical hazards.

Inhalation

: 2X Hi-RPM Hybridization Buffer

No known significant effects or critical hazards.

10X aCGH Blocking Agent

No known significant effects or critical hazards.

Skin contact

: 2X Hi-RPM Hybridization Buffer

Causes skin irritation.

10X aCGH Blocking Agent

No known significant effects or critical hazards.

Section 4. First aid measures

Ingestion	:	2X Hi-RPM Hybridization Buffer	No known significant effects or critical hazards.
		10X aCGH Blocking Agent	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	2X Hi-RPM Hybridization Buffer	Adverse symptoms may include the following: pain or irritation watering redness
		10X aCGH Blocking Agent	No specific data.
Inhalation	:	2X Hi-RPM Hybridization Buffer	No specific data.
		10X aCGH Blocking Agent	No specific data.
Skin contact	:	2X Hi-RPM Hybridization Buffer	Adverse symptoms may include the following: irritation redness
		10X aCGH Blocking Agent	No specific data.
Ingestion	:	2X Hi-RPM Hybridization Buffer	No specific data.
		10X aCGH Blocking Agent	No specific data.

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

Notes to physician	:	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.
		10X aCGH Blocking Agent	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	2X Hi-RPM Hybridization Buffer	No specific treatment.
		10X aCGH Blocking Agent	No specific treatment.
Protection of first-aiders	:	2X Hi-RPM Hybridization Buffer	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
		10X aCGH Blocking Agent	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

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

Section 5. Firefighting measures

Specific hazards arising from the chemical	:	2X Hi-RPM Hybridization Buffer	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.
		10X aCGH Blocking Agent	No specific fire or explosion hazard.
Hazardous thermal decomposition products	:	2X Hi-RPM Hybridization Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
		10X aCGH Blocking Agent	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides halogenated compounds
Special protective actions for fire-fighters	:	2X Hi-RPM Hybridization Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
		10X aCGH Blocking Agent	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	2X Hi-RPM Hybridization Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		10X aCGH Blocking Agent	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hazchem code	:	2X Hi-RPM Hybridization Buffer	•3Z
		10X aCGH Blocking Agent	Not available.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
		10X aCGH Blocking Agent	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

Section 6. Accidental release measures

For emergency responders :

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".

10X aCGH Blocking Agent: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions :

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.

10X aCGH Blocking Agent: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up :

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. Dispose of via a licensed waste disposal contractor.

10X aCGH Blocking Agent: 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures :

2X Hi-RPM Hybridization Buffer: Put on appropriate personal protective equipment (see Section 8). Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

10X aCGH Blocking Agent: Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene :

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.

10X aCGH Blocking Agent: 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.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities :

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. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
10X aCGH Blocking Agent	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.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2X Hi-RPM Hybridization Buffer Lithium chloride	**DFG MAC-values list (Germany, 7/2022). [Lithium compounds, inorganic except of lithium and highly irritating lithium compounds (as lithium amide, hydride, hydroxide, nitride, oxide, tetrahydroaluminate, tetrahydroborate) (as Li)]** TWA: 0.2 mg/m³, (as Li) 8 hours. Form: inhalable fraction PEAK: 0.2 mg/m³, (as Li), 4 times per shift, 15 minutes. Form: inhalable fraction

Biological exposure indices

No exposure indices known.

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.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls and personal protection

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state	:	2X Hi-RPM Hybridization Buffer	Liquid.
		10X aCGH Blocking Agent	Solid. [Lyophilized]
Colour	:	2X Hi-RPM Hybridization Buffer	Not available.
		10X aCGH Blocking Agent	Not available.
Odour	:	2X Hi-RPM Hybridization Buffer	Not available.
		10X aCGH Blocking Agent	Not available.
Odour threshold	:	2X Hi-RPM Hybridization Buffer	Not available.
		10X aCGH Blocking Agent	Not available.
pH	:	2X Hi-RPM Hybridization Buffer	6 to 6.2
		10X aCGH Blocking Agent	7.5 [Conc. (% w/w): 100%]
Melting point/freezing point	:	2X Hi-RPM Hybridization Buffer	Not available.
		10X aCGH Blocking Agent	Not available.
Boiling point, initial boiling point, and boiling range	:	2X Hi-RPM Hybridization Buffer	Not available.
		10X aCGH Blocking Agent	Not available.
Flash point	:		

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Closed cup °C	Closed cup °F	Closed cup Method	Open cup °C	Open cup °F	Open cup Method
2X Hi-RPM Hybridization Buffer						
Polyoxyethylene octyl phenyl ether	>109.85	>229.7	-	-	-	-

Evaporation rate :
- 2X Hi-RPM Hybridization Buffer — Not available.
- 10X aCGH Blocking Agent — Not available.

Flammability :
- 2X Hi-RPM Hybridization Buffer — Not applicable.
- 10X aCGH Blocking Agent — Not available.

Lower and upper explosion limit/flammability limit :
- 2X Hi-RPM Hybridization Buffer — Not available.
- 10X aCGH Blocking Agent — Not applicable.

Vapour pressure :

Ingredient name	Vapour Pressure at 20˚C mm Hg	Vapour Pressure at 20˚C kPa	Vapour Pressure at 20˚C Method	Vapour pressure at 50˚C mm Hg	Vapour pressure at 50˚C kPa	Vapour pressure at 50˚C Method
2X Hi-RPM Hybridization Buffer						
water	17.5	2.3	-	92.258	12.3	-
Polyoxyethylene octyl phenyl ether	0.997581	0.13	-	-	-	-

Relative vapour density :
- 2X Hi-RPM Hybridization Buffer — Not available.
- 10X aCGH Blocking Agent — Not applicable.

Relative density :
- 2X Hi-RPM Hybridization Buffer — Not available.
- 10X aCGH Blocking Agent — Not available.

Solubility(ies) :

Media	Result
2X Hi-RPM Hybridization Buffer	
water	Soluble
10X aCGH Blocking Agent	
water	Soluble

Partition coefficient: n-octanol/water :
- 2X Hi-RPM Hybridization Buffer — Not applicable.
- 10X aCGH Blocking Agent — Not applicable.

Auto-ignition temperature :

Ingredient name	°C	°F	Method
2X Hi-RPM Hybridization Buffer			
Lithium dodecyl sulphate	366	690.8	-

Decomposition temperature :
- 2X Hi-RPM Hybridization Buffer — Not available.
- 10X aCGH Blocking Agent — Not available.

Viscosity :
- 2X Hi-RPM Hybridization Buffer — Not available.
- 10X aCGH Blocking Agent — Not applicable.

Particle characteristics

Section 9. Physical and chemical properties and safety characteristics

Median particle size	:	2X Hi-RPM Hybridization Buffer	Not applicable.
		10X aCGH Blocking Agent	Not available.

Section 10. Stability and reactivity

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2X 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	-
Polyoxyethylene octyl phenyl ether	LD50 Oral	Rat	1800 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

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	-

Sensitisation

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)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
2X Hi-RPM Hybridization Buffer			
Lithium chloride	Category 1	-	-

Aspiration hazard

Not available.

Information on likely routes of exposure :

2X Hi-RPM Hybridization Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
10X aCGH Blocking Agent	Not available.

Potential acute health effects

Eye contact :

2X Hi-RPM Hybridization Buffer	Causes serious eye irritation.
10X aCGH Blocking Agent	No known significant effects or critical hazards.

Inhalation :

2X Hi-RPM Hybridization Buffer	No known significant effects or critical hazards.
10X aCGH Blocking Agent	No known significant effects or critical hazards.

Skin contact :

2X Hi-RPM Hybridization Buffer	Causes skin irritation.
10X aCGH Blocking Agent	No known significant effects or critical hazards.

Ingestion :

2X Hi-RPM Hybridization Buffer	No known significant effects or critical hazards.
10X aCGH Blocking Agent	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact

2X Hi-RPM Hybridization Buffer	Adverse symptoms may include the following: pain or irritation watering redness
10X aCGH Blocking Agent	No specific data.

Inhalation

2X Hi-RPM Hybridization Buffer	No specific data.
10X aCGH Blocking Agent	No specific data.

Skin contact

2X Hi-RPM Hybridization Buffer	Adverse symptoms may include the following: irritation redness
10X aCGH Blocking Agent	No specific data.

Ingestion

2X Hi-RPM Hybridization Buffer	No specific data.
10X aCGH Blocking Agent	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

General

2X Hi-RPM Hybridization Buffer	Causes damage to organs through prolonged or repeated exposure.
10X aCGH Blocking Agent	No known significant effects or critical hazards.

Carcinogenicity

2X Hi-RPM Hybridization Buffer	No known significant effects or critical hazards.
10X aCGH Blocking Agent	No known significant effects or critical hazards.

Mutagenicity

2X Hi-RPM Hybridization Buffer	No known significant effects or critical hazards.
10X aCGH Blocking Agent	No known significant effects or critical hazards.

Reproductive toxicity

2X Hi-RPM Hybridization Buffer	No known significant effects or critical hazards.
10X aCGH Blocking Agent	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

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
Polyoxyethylene octyl phenyl ether	1800	N/A	N/A	N/A	N/A

Other information

2X Hi-RPM Hybridization Buffer	Adverse symptoms may include the following: May cause skin sensitisation.

Section 12. Ecological information

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 ether	Acute LC50 5.85 mg/l Fresh water	Crustaceans - *Ceriodaphnia rigaudi* - Neonate	48 hours
	Acute LC50 11.2 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 4500 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
	Chronic NOEC 0.004 mg/l Fresh water	Fish - *Gambusia holbrooki*	28 days

Persistence and degradability

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

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
2X Hi-RPM Hybridization Buffer			
Polyoxyethylene octyl phenyl ether	4.86	-	High

Mobility in soil

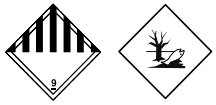
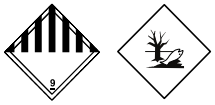
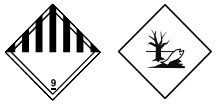
Soil/water partition coefficient (K_{OC}) : Not available.

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADG	IMDG	IATA
UN number	UN3082	UN3082	UN3082
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)
Transport hazard class(es)	9 	9 	9 
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes.

Additional information

Remarks: Excepted Quantity

ADG : The product is not regulated as a dangerous good when transported by road or rail in either an IBC, or in other container types if ≤500 kg. 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.
Hazchem code •3Z
Special provisions 274, 331, 335, 375, AU01

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

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Section 15. Regulatory information

Montreal Protocol

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.

New Zealand : Not determined.

United States : Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 29/11/2023

Date of previous issue : 29/03/2021

Version : 7

Key to abbreviations : ADG = Australian Dangerous Goods
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations

Procedure used to derive the classification

Classification	Justification
2X Hi-RPM Hybridization Buffer	
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1	Calculation method
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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