

SAFETY DATA SHEET



Avida DNA Reagent Kit with 17-32 Index Primer Pairs for ILM, 16 Reactions, Part Number G9409B

Section 1. Identification

1.1 Product identifier

Product name	: Avida DNA Reagent Kit with 17-32 Index Primer Pairs for ILM, 16 Reactions, Part Number G9409B	
Part no. (chemical kit)	: G9409B	
Part no.	: <u>Avida DNA and Duo Reagent Box 2, 16 reactions</u>	<u>5282-0141</u>
	Nuclease-Free Water	5271-0107
	Library Wash Buffer	5271-0103
	Hyb Wash Buffer 1	5271-0104
	Hyb Wash Buffer 2	5271-0105
	Resuspension Buffer	5271-0106
	<u>Avida DNA Reagent Box 1, 16 Reactions</u>	<u>5282-0139</u>
	End Prep Buffer	5271-0094
	End Prep Enzyme	5271-0095
	Ligation Buffer	5271-0096
	Ligation Enzyme	5271-0097
	Adapter for ILM	5271-0112
	Hyb Blocker	5271-0099
	Hyb Buffer	5271-0100
	Hyb Enhancer	5271-0101
	2X Amplification Mastermix	5271-0102
	<u>Avida Beads Box, 16 Reactions</u>	<u>5282-0143</u>
	Library Binding Beads	5271-0108
	Capture Beads	5271-0109
	<u>Avida Index Primer Pairs 17-32 for ILM</u>	<u>5280-0053</u>
	Index Primer Mix for ILM 17-24	5274-0077
	Index Primer Mix for ILM 25-32	5274-0078
Validation date	: 4/11/2024	

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

Identified uses	: Analytical reagent. For research use only.	
	Nuclease-Free Water	0.88 ml (16 reactions)
	Library Wash Buffer	6.336 ml (16 reactions)
	Hyb Wash Buffer 1	2 x 5.28 ml (16 reactions)
	Hyb Wash Buffer 2	2 x 2.64 ml (16 reactions)
	Resuspension Buffer	0.352 ml (16 reactions)
	End Prep Buffer	0.124 ml (16 reactions)
	End Prep Enzyme	0.053 ml (16 reactions)
	Ligation Buffer	0.44 ml (16 reactions)
	Ligation Enzyme	0.106 ml (16 reactions)
	Adapter for ILM	0.088 ml (16 reactions)
	Hyb Blocker	0.044 ml (16 reactions)
	Hyb Buffer	0.81 ml (16 reactions)
	Hyb Enhancer	0.132 ml (16 reactions)
	2X Amplification Mastermix	0.44 ml (16 reactions)
	Library Binding Beads	1.532 ml (16 reactions)
	Capture Beads	0.141 ml (16 reactions)
	Index Primer Mix for ILM 17-24	8 x 0.005 ml
	Index Primer Mix for ILM 25-32	8 x 0.005 ml

Uses advised against : Not for use in diagnostic procedures.

1.3 Details of the supplier of the safety data sheet

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Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status	: Nuclease-Free Water	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Library Wash Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Hyb Wash Buffer 1	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Hyb Wash Buffer 2	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Resuspension Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	End Prep Buffer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	End Prep Enzyme	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	Ligation Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Ligation Enzyme	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	Adapter for ILM	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees

Section 2. Hazards identification

Hyb Blocker	and other users of this product. While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Hyb Buffer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Hyb Enhancer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
2X Amplification Mastermix	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Library Binding Beads	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Capture Beads	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Index Primer Mix for ILM 17-24	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Index Primer Mix for ILM 25-32	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

End Prep Buffer

H412 AQUATIC HAZARD (LONG-TERM) - Category 3

End Prep Enzyme

H320 EYE IRRITATION - Category 2B

Ligation Enzyme

H320 EYE IRRITATION - Category 2B



Hyb Buffer

H302 ACUTE TOXICITY (oral) - Category 4
H315 SKIN IRRITATION - Category 2
H370 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
H412 AQUATIC HAZARD (LONG-TERM) - Category 3

Hyb Enhancer

H351 CARCINOGENICITY - Category 2
H360 TOXIC TO REPRODUCTION - Category 1B

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H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	
Ingredients of unknown toxicity	: Hyb Buffer	Percentage of the mixture consisting of ingredient (s) of unknown acute oral toxicity: 1 - 10%
	Hyb Buffer	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 3.4%
2.2 GHS label elements		
Hazard pictograms	: Hyb Buffer	
	Hyb Enhancer	
Signal word	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32	No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. Warning No signal word. Warning No signal word. No signal word. Danger Danger No signal word. No signal word. No signal word. No signal word. No signal word.
Hazard statements	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. H412 - Harmful to aquatic life with long lasting effects. H320 - Causes eye irritation. No known significant effects or critical hazards. H320 - Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. H302 - Harmful if swallowed. H315 - Causes skin irritation. H370 - Causes damage to organs. (central nervous system (CNS)) H412 - Harmful to aquatic life with long lasting effects. H351 - Suspected of causing cancer. H360 - May damage fertility or the unborn child. H373 - May cause damage to organs through prolonged or repeated exposure. (blood)

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	2X Amplification Mastermix	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Index Primer Mix for ILM 17-24	No known significant effects or critical hazards.
	Index Primer Mix for ILM 25-32	No known significant effects or critical hazards.
Precautionary statements		
Prevention		
	: Nuclease-Free Water	Not applicable.
	Library Wash Buffer	Not applicable.
	Hyb Wash Buffer 1	Not applicable.
	Hyb Wash Buffer 2	Not applicable.
	Resuspension Buffer	Not applicable.
	End Prep Buffer	P273 - Avoid release to the environment.
	End Prep Enzyme	Not applicable.
	Ligation Buffer	Not applicable.
	Ligation Enzyme	Not applicable.
	Adapter for ILM	Not applicable.
	Hyb Blocker	Not applicable.
	Hyb Buffer	P280 - Wear protective gloves. P273 - Avoid release to the environment. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash thoroughly after handling.
	Hyb Enhancer	P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection. P260 - Do not breathe vapor.
	2X Amplification Mastermix	Not applicable.
	Library Binding Beads	Not applicable.
	Capture Beads	Not applicable.
	Index Primer Mix for ILM 17-24	Not applicable.
	Index Primer Mix for ILM 25-32	Not applicable.
Response	: Nuclease-Free Water	Not applicable.
	Library Wash Buffer	Not applicable.
	Hyb Wash Buffer 1	Not applicable.
	Hyb Wash Buffer 2	Not applicable.
	Resuspension Buffer	Not applicable.
	End Prep Buffer	Not applicable.
	End Prep Enzyme	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
	Ligation Buffer	Not applicable.
	Ligation Enzyme	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
	Adapter for ILM	Not applicable.
	Hyb Blocker	Not applicable.
	Hyb Buffer	P308 + P311 - IF exposed: Call a POISON CENTER or doctor. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water.
	Hyb Enhancer	P308 + P313 - IF exposed or concerned: Get

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		2X Amplification Mastermix	medical advice or attention.
		Library Binding Beads	Not applicable.
		Capture Beads	Not applicable.
		Index Primer Mix for ILM 17-24	Not applicable.
		Index Primer Mix for ILM 25-32	Not applicable.
Storage	:	Nuclease-Free Water	Not applicable.
		Library Wash Buffer	Not applicable.
		Hyb Wash Buffer 1	Not applicable.
		Hyb Wash Buffer 2	Not applicable.
		Resuspension Buffer	Not applicable.
		End Prep Buffer	Not applicable.
		End Prep Enzyme	Not applicable.
		Ligation Buffer	Not applicable.
		Ligation Enzyme	Not applicable.
		Adapter for ILM	Not applicable.
		Hyb Blocker	Not applicable.
		Hyb Buffer	Not applicable.
		Hyb Enhancer	Not applicable.
		2X Amplification Mastermix	Not applicable.
		Library Binding Beads	Not applicable.
		Capture Beads	Not applicable.
		Index Primer Mix for ILM 17-24	Not applicable.
		Index Primer Mix for ILM 25-32	Not applicable.
Disposal	:	Nuclease-Free Water	Not applicable.
		Library Wash Buffer	Not applicable.
		Hyb Wash Buffer 1	Not applicable.
		Hyb Wash Buffer 2	Not applicable.
		Resuspension Buffer	Not applicable.
		End Prep Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		End Prep Enzyme	Not applicable.
		Ligation Buffer	Not applicable.
		Ligation Enzyme	Not applicable.
		Adapter for ILM	Not applicable.
		Hyb Blocker	Not applicable.
		Hyb Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		Hyb Enhancer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		2X Amplification Mastermix	Not applicable.
		Library Binding Beads	Not applicable.
		Capture Beads	Not applicable.
		Index Primer Mix for ILM 17-24	Not applicable.
		Index Primer Mix for ILM 25-32	Not applicable.
Supplemental label elements	:	Nuclease-Free Water	None known.
		Library Wash Buffer	None known.
		Hyb Wash Buffer 1	None known.
		Hyb Wash Buffer 2	None known.
		Resuspension Buffer	None known.
		End Prep Buffer	None known.
		End Prep Enzyme	None known.
		Ligation Buffer	None known.
		Ligation Enzyme	None known.
		Adapter for ILM	None known.
		Hyb Blocker	None known.
		Hyb Buffer	None known.

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Hyb Enhancer	None known.
2X Amplification Mastermix	None known.
Library Binding Beads	None known.
Capture Beads	None known.
Index Primer Mix for ILM 17-24	None known.
Index Primer Mix for ILM 25-32	None known.

2.3 Other hazards

Hazards not otherwise classified

: Nuclease-Free Water	None known.
Library Wash Buffer	None known.
Hyb Wash Buffer 1	None known.
Hyb Wash Buffer 2	None known.
Resuspension Buffer	None known.
End Prep Buffer	None known.
End Prep Enzyme	None known.
Ligation Buffer	None known.
Ligation Enzyme	None known.
Adapter for ILM	None known.
Hyb Blocker	None known.
Hyb Buffer	None known.
Hyb Enhancer	None known.
2X Amplification Mastermix	None known.
Library Binding Beads	None known.
Capture Beads	None known.
Index Primer Mix for ILM 17-24	None known.
Index Primer Mix for ILM 25-32	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	Nuclease-Free Water	Substance
		Library Wash Buffer	Mixture
		Hyb Wash Buffer 1	Mixture
		Hyb Wash Buffer 2	Mixture
		Resuspension Buffer	Mixture
		End Prep Buffer	Mixture
		End Prep Enzyme	Mixture
		Ligation Buffer	Mixture
		Ligation Enzyme	Mixture
		Adapter for ILM	Mixture
		Hyb Blocker	Mixture
		Hyb Buffer	Mixture
		Hyb Enhancer	Mixture
		2X Amplification Mastermix	Mixture
		Library Binding Beads	Mixture
		Capture Beads	Mixture
		Index Primer Mix for ILM 17-24	Mixture
		Index Primer Mix for ILM 25-32	Mixture

Ingredient name	%	CAS number
Nuclease-Free Water		
water	100	7732-18-5
Hyb Wash Buffer 1		
Sodium dodecyl sulphate	≤0.3	151-21-3
Hyb Wash Buffer 2		

Section 3. Composition/information on ingredients

Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	<0.1	9036-19-5
End Prep Buffer		
Magnesium chloride	<2.5	7786-30-3
End Prep Enzyme		
Glycerol	≥50 - ≤75	56-81-5
Ligation Enzyme		
Glycerol	≥50 - ≤75	56-81-5
Hyb Buffer		
tetramethylammonium chloride	≥10 - <15	75-57-0
Dextran sulfate sodium	≤3	9011-18-1
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	<0.1	9036-19-5
Hyb Enhancer		
Formamide	≥90	75-12-7
2X Amplification Mastermix		
Glycerol	<10	56-81-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

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

Section 4. First aid measures

[4.1 Description of necessary first aid measures](#)

Eye contact	: Nuclease-Free Water	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.
	Library Wash Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Hyb Wash Buffer 1	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.
	Hyb Wash Buffer 2	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

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Resuspension Buffer	Check for and remove any contact lenses. Get medical attention if irritation occurs. 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.
End Prep Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
End Prep Enzyme	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. If irritation persists, get medical attention.
Ligation Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Ligation Enzyme	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. If irritation persists, get medical attention.
Adapter for ILM	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.
Hyb Blocker	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.
Hyb 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. If necessary, call a poison center or physician.
Hyb Enhancer	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.
2X Amplification Mastermix	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.
Library Binding Beads	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.
Capture Beads	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.
Index Primer Mix for ILM 17-24	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.
Index Primer Mix for ILM 25-32	Immediately flush eyes with plenty of water,

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Inhalation

: Nuclease-Free Water	occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Library Wash Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Hyb Wash Buffer 1	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Hyb Wash Buffer 2	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Resuspension Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
End Prep Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
End Prep Enzyme	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. 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.
Ligation Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Ligation Enzyme	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. 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.
Adapter for ILM	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Hyb Blocker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical

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Hyb Buffer	attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Hyb Enhancer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
2X Amplification Mastermix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Library Binding Beads	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Capture Beads	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Index Primer Mix for ILM 17-24	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Index Primer Mix for ILM 25-32	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact : Nuclease-Free Water	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Library Wash Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Hyb Wash Buffer 1	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Hyb Wash Buffer 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Resuspension Buffer	Flush contaminated skin with plenty of water.

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End Prep Buffer	Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water.
End Prep Enzyme	Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ligation Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ligation Enzyme	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Adapter for ILM	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Hyb Blocker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Hyb Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Hyb Enhancer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
2X Amplification Mastermix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Library Binding Beads	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Capture Beads	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Index Primer Mix for ILM 17-24	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Index Primer Mix for ILM 25-32	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Nuclease-Free Water 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.
Library Wash Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious,

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	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.
Hyb Wash Buffer 1	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.
Hyb Wash Buffer 2	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.
Resuspension Buffer	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.
End Prep Buffer	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.
End Prep Enzyme	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 if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ligation Buffer	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.
Ligation Enzyme	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 if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen

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Adapter for ILM	<p>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.</p>
Hyb Blocker	<p>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.</p>
Hyb Buffer	<p>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. If necessary, call a poison center or 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.</p>
Hyb Enhancer	<p>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. 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.</p>
2X Amplification Mastermix	<p>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.</p>
Library Binding Beads	<p>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.</p>
Capture Beads	<p>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.</p>
Index Primer Mix for ILM 17-24	<p>Wash out mouth with water. If material has been swallowed and the exposed person is conscious,</p>

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Index Primer Mix for ILM 25-32

give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. 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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

: Nuclease-Free Water
Library Wash Buffer
Hyb Wash Buffer 1
Hyb Wash Buffer 2
Resuspension Buffer
End Prep Buffer
End Prep Enzyme
Ligation Buffer
Ligation Enzyme
Adapter for ILM
Hyb Blocker
Hyb Buffer
Hyb Enhancer
2X Amplification Mastermix
Library Binding Beads
Capture Beads
Index Primer Mix for ILM 17-24
Index Primer Mix for ILM 25-32

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
Causes eye irritation.
No known significant effects or critical hazards.
Causes eye irritation.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Inhalation

: Nuclease-Free Water
Library Wash Buffer
Hyb Wash Buffer 1
Hyb Wash Buffer 2
Resuspension Buffer
End Prep Buffer
End Prep Enzyme
Ligation Buffer
Ligation Enzyme
Adapter for ILM
Hyb Blocker
Hyb Buffer

Hyb Enhancer
2X Amplification Mastermix
Library Binding Beads
Capture Beads
Index Primer Mix for ILM 17-24
Index Primer Mix for ILM 25-32

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
Causes damage to organs following a single exposure if inhaled.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Skin contact

: Nuclease-Free Water
Library Wash Buffer
Hyb Wash Buffer 1
Hyb Wash Buffer 2
Resuspension Buffer
End Prep Buffer
End Prep Enzyme
Ligation Buffer
Ligation Enzyme

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

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	Adapter for ILM	No known significant effects or critical hazards.
	Hyb Blocker	No known significant effects or critical hazards.
	Hyb Buffer	Causes damage to organs following a single exposure in contact with skin. Causes skin irritation.
	Hyb Enhancer	No known significant effects or critical hazards.
	2X Amplification Mastermix	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Index Primer Mix for ILM 17-24	No known significant effects or critical hazards.
	Index Primer Mix for ILM 25-32	No known significant effects or critical hazards.
Ingestion	: Nuclease-Free Water	No known significant effects or critical hazards.
	Library Wash Buffer	No known significant effects or critical hazards.
	Hyb Wash Buffer 1	No known significant effects or critical hazards.
	Hyb Wash Buffer 2	No known significant effects or critical hazards.
	Resuspension Buffer	No known significant effects or critical hazards.
	End Prep Buffer	No known significant effects or critical hazards.
	End Prep Enzyme	No known significant effects or critical hazards.
	Ligation Buffer	No known significant effects or critical hazards.
	Ligation Enzyme	No known significant effects or critical hazards.
	Adapter for ILM	No known significant effects or critical hazards.
	Hyb Blocker	No known significant effects or critical hazards.
	Hyb Buffer	Harmful if swallowed. Causes damage to organs following a single exposure if swallowed.
	Hyb Enhancer	No known significant effects or critical hazards.
	2X Amplification Mastermix	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Index Primer Mix for ILM 17-24	No known significant effects or critical hazards.
	Index Primer Mix for ILM 25-32	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Nuclease-Free Water	No specific data.
	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Resuspension Buffer	No specific data.
	End Prep Buffer	No specific data.
	End Prep Enzyme	Adverse symptoms may include the following: irritation watering redness
	Ligation Buffer	No specific data.
	Ligation Enzyme	Adverse symptoms may include the following: irritation watering redness
	Adapter for ILM	No specific data.
	Hyb Blocker	No specific data.
	Hyb Buffer	Adverse symptoms may include the following: pain or irritation watering redness
	Hyb Enhancer	No specific data.
	2X Amplification Mastermix	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Index Primer Mix for ILM 17-24	No specific data.
	Index Primer Mix for ILM 25-32	No specific data.

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Inhalation

Nuclease-Free Water	No specific data.
Library Wash Buffer	No specific data.
Hyb Wash Buffer 1	No specific data.
Hyb Wash Buffer 2	No specific data.
Resuspension Buffer	No specific data.
End Prep Buffer	No specific data.
End Prep Enzyme	No specific data.
Ligation Buffer	No specific data.
Ligation Enzyme	No specific data.
Adapter for ILM	No specific data.
Hyb Blocker	No specific data.
Hyb Buffer	No specific data.
Hyb Enhancer	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
2X Amplification Mastermix	No specific data.
Library Binding Beads	No specific data.
Capture Beads	No specific data.
Index Primer Mix for ILM 17-24	No specific data.
Index Primer Mix for ILM 25-32	No specific data.

Skin contact

Nuclease-Free Water	No specific data.
Library Wash Buffer	No specific data.
Hyb Wash Buffer 1	No specific data.
Hyb Wash Buffer 2	No specific data.
Resuspension Buffer	No specific data.
End Prep Buffer	No specific data.
End Prep Enzyme	No specific data.
Ligation Buffer	No specific data.
Ligation Enzyme	No specific data.
Adapter for ILM	No specific data.
Hyb Blocker	No specific data.
Hyb Buffer	Adverse symptoms may include the following: irritation redness
Hyb Enhancer	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
2X Amplification Mastermix	No specific data.
Library Binding Beads	No specific data.
Capture Beads	No specific data.
Index Primer Mix for ILM 17-24	No specific data.
Index Primer Mix for ILM 25-32	No specific data.

Ingestion

Nuclease-Free Water	No specific data.
Library Wash Buffer	No specific data.
Hyb Wash Buffer 1	No specific data.
Hyb Wash Buffer 2	No specific data.
Resuspension Buffer	No specific data.
End Prep Buffer	No specific data.
End Prep Enzyme	No specific data.
Ligation Buffer	No specific data.
Ligation Enzyme	No specific data.
Adapter for ILM	No specific data.
Hyb Blocker	No specific data.
Hyb Buffer	No specific data.
Hyb Enhancer	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

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2X Amplification Mastermix	No specific data.
Library Binding Beads	No specific data.
Capture Beads	No specific data.
Index Primer Mix for ILM 17-24	No specific data.
Index Primer Mix for ILM 25-32	No specific data.

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

Notes to physician	: Nuclease-Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Library Wash Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Hyb Wash Buffer 1	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Hyb Wash Buffer 2	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Resuspension Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	End Prep 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.
	End Prep Enzyme	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Ligation 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.
	Ligation Enzyme	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Adapter for ILM	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Hyb Blocker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Hyb 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.
	Hyb Enhancer	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 Amplification Mastermix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Library Binding Beads	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Capture Beads	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

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	Index Primer Mix for ILM 17-24	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Index Primer Mix for ILM 25-32	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Nuclease-Free Water	No specific treatment.
	Library Wash Buffer	No specific treatment.
	Hyb Wash Buffer 1	No specific treatment.
	Hyb Wash Buffer 2	No specific treatment.
	Resuspension Buffer	No specific treatment.
	End Prep Buffer	No specific treatment.
	End Prep Enzyme	No specific treatment.
	Ligation Buffer	No specific treatment.
	Ligation Enzyme	No specific treatment.
	Adapter for ILM	No specific treatment.
	Hyb Blocker	No specific treatment.
	Hyb Buffer	No specific treatment.
	Hyb Enhancer	No specific treatment.
	2X Amplification Mastermix	No specific treatment.
	Library Binding Beads	No specific treatment.
	Capture Beads	No specific treatment.
	Index Primer Mix for ILM 17-24	No specific treatment.
	Index Primer Mix for ILM 25-32	No specific treatment.
Protection of first-aiders	: Nuclease-Free Water	No action shall be taken involving any personal risk or without suitable training.
	Library Wash Buffer	No action shall be taken involving any personal risk or without suitable training.
	Hyb Wash Buffer 1	No action shall be taken involving any personal risk or without suitable training.
	Hyb Wash Buffer 2	No action shall be taken involving any personal risk or without suitable training.
	Resuspension Buffer	No action shall be taken involving any personal risk or without suitable training.
	End Prep Buffer	No action shall be taken involving any personal risk or without suitable training.
	End Prep Enzyme	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.
	Ligation Buffer	No action shall be taken involving any personal risk or without suitable training.
	Ligation Enzyme	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.
	Adapter for ILM	No action shall be taken involving any personal risk or without suitable training.
	Hyb Blocker	No action shall be taken involving any personal risk or without suitable training.
	Hyb 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.
	Hyb Enhancer	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.

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2X Amplification Mastermix	Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
Library Binding Beads	No action shall be taken involving any personal risk or without suitable training.
Capture Beads	No action shall be taken involving any personal risk or without suitable training.
Index Primer Mix for ILM 17-24	No action shall be taken involving any personal risk or without suitable training.
Index Primer Mix for ILM 25-32	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

: Nuclease-Free Water	Use an extinguishing agent suitable for the surrounding fire.
Library Wash Buffer	Use an extinguishing agent suitable for the surrounding fire.
Hyb Wash Buffer 1	Use an extinguishing agent suitable for the surrounding fire.
Hyb Wash Buffer 2	Use an extinguishing agent suitable for the surrounding fire.
Resuspension Buffer	Use an extinguishing agent suitable for the surrounding fire.
End Prep Buffer	Use an extinguishing agent suitable for the surrounding fire.
End Prep Enzyme	Use an extinguishing agent suitable for the surrounding fire.
Ligation Buffer	Use an extinguishing agent suitable for the surrounding fire.
Ligation Enzyme	Use an extinguishing agent suitable for the surrounding fire.
Adapter for ILM	Use an extinguishing agent suitable for the surrounding fire.
Hyb Blocker	Use an extinguishing agent suitable for the surrounding fire.
Hyb Buffer	Use an extinguishing agent suitable for the surrounding fire.
Hyb Enhancer	Use an extinguishing agent suitable for the surrounding fire.
2X Amplification Mastermix	Use an extinguishing agent suitable for the surrounding fire.
Library Binding Beads	Use an extinguishing agent suitable for the surrounding fire.
Capture Beads	Use an extinguishing agent suitable for the surrounding fire.
Index Primer Mix for ILM 17-24	Use an extinguishing agent suitable for the surrounding fire.
Index Primer Mix for ILM 25-32	Use an extinguishing agent suitable for the surrounding fire.

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Unsuitable extinguishing media	: Nuclease-Free Water	None known.
	Library Wash Buffer	None known.
	Hyb Wash Buffer 1	None known.
	Hyb Wash Buffer 2	None known.
	Resuspension Buffer	None known.
	End Prep Buffer	None known.
	End Prep Enzyme	None known.
	Ligation Buffer	None known.
	Ligation Enzyme	None known.
	Adapter for ILM	None known.
	Hyb Blocker	None known.
	Hyb Buffer	None known.
	Hyb Enhancer	None known.
	2X Amplification Mastermix	None known.
	Library Binding Beads	None known.
	Capture Beads	None known.

None known.
None known.
None known.
None known.
None known.
None known.
None known.
None known.
None known.
None known.
None known.
None known.
None known.
None known.
None known.
None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: Nuclease-Free Water	In a fire or if heated, a pressure increase will occur and the container may burst.
	Library Wash Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	Hyb Wash Buffer 1	In a fire or if heated, a pressure increase will occur and the container may burst.
	Hyb Wash Buffer 2	In a fire or if heated, a pressure increase will occur and the container may burst.
	Resuspension Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	End Prep Buffer	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful 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.
	End Prep Enzyme	In a fire or if heated, a pressure increase will occur and the container may burst.
	Ligation Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	Ligation Enzyme	In a fire or if heated, a pressure increase will occur and the container may burst.
	Adapter for ILM	In a fire or if heated, a pressure increase will occur and the container may burst.
	Hyb Blocker	In a fire or if heated, a pressure increase will occur and the container may burst.
	Hyb Buffer	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful 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.
	Hyb Enhancer	In a fire or if heated, a pressure increase will occur and the container may burst.
	2X Amplification Mastermix	In a fire or if heated, a pressure increase will occur and the container may burst.
	Library Binding Beads	In a fire or if heated, a pressure increase will occur and the container may burst.

In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful 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.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful 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.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.
In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Fire-fighting measures

	Index Primer Mix for ILM 17-24	In a fire or if heated, a pressure increase will occur and the container may burst.
	Index Primer Mix for ILM 25-32	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: Nuclease-Free Water	No specific data.
	Library Wash Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
	Hyb Wash Buffer 1	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
	Hyb Wash Buffer 2	No specific data.
	Resuspension Buffer	No specific data.
	End Prep Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	End Prep Enzyme	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Ligation Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds
	Ligation Enzyme	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Adapter for ILM	No specific data.
Hyb Blocker	No specific data.	
Hyb Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides phosphorus oxides halogenated compounds metal oxide/oxides	
Hyb Enhancer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides	
2X Amplification Mastermix	Decomposition products may include the following materials: carbon dioxide carbon monoxide	
Library Binding Beads	Decomposition products may include the following materials:	

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	carbon dioxide
	carbon monoxide
	halogenated compounds
	metal oxide/oxides
Capture Beads	No specific data.
Index Primer Mix for ILM 17-24	No specific data.
Index Primer Mix for ILM 25-32	No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Nuclease-Free Water	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.
Library Wash 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.
Hyb Wash Buffer 1	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.
Hyb Wash Buffer 2	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.
Resuspension 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.
End Prep 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.
End Prep Enzyme	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.
Ligation 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.
Ligation Enzyme	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.
Adapter for ILM	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.
Hyb Blocker	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.
Hyb 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.
Hyb Enhancer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No

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		action shall be taken involving any personal risk or without suitable training.
	2X Amplification Mastermix	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.
	Library Binding Beads	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.
	Capture Beads	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.
	Index Primer Mix for ILM 17-24	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.
	Index Primer Mix for ILM 25-32	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	: Nuclease-Free Water	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Library Wash Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Hyb Wash Buffer 1	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Hyb Wash Buffer 2	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Resuspension Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	End Prep Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	End Prep Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Ligation Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Ligation Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Adapter for ILM	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

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Hyb Blocker	(SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hyb Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hyb Enhancer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
2X Amplification Mastermix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Library Binding Beads	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Capture Beads	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Index Primer Mix for ILM 17-24	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Index Primer Mix for ILM 25-32	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Nuclease-Free Water	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	Library Wash 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 spilled material. Put on appropriate personal protective equipment.
	Hyb Wash Buffer 1	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	Hyb Wash Buffer 2	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

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Resuspension Buffer	touch or walk through spilled material. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
End Prep 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 spilled material. Put on appropriate personal protective equipment.
End Prep Enzyme	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Ligation 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 spilled material. Put on appropriate personal protective equipment.
Ligation Enzyme	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Adapter for ILM	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
Hyb Blocker	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
Hyb 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Hyb Enhancer	No action shall be taken involving any personal

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risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

2X Amplification Mastermix

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Library Binding Beads

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Capture Beads

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Index Primer Mix for ILM 17-24

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Index Primer Mix for ILM 25-32

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : Nuclease-Free Water

If specialized 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".

Library Wash Buffer

If specialized 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".

Hyb Wash Buffer 1

If specialized 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".

Hyb Wash Buffer 2

If specialized 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".

Resuspension Buffer

If specialized 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".

End Prep Buffer

If specialized clothing is required to deal with the spillage, take note of any information in Section 8

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End Prep Enzyme	on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized 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".
Ligation Buffer	If specialized 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".
Ligation Enzyme	If specialized 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".
Adapter for ILM	If specialized 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".
Hyb Blocker	If specialized 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".
Hyb Buffer	If specialized 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".
Hyb Enhancer	If specialized 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 Amplification Mastermix	If specialized 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".
Library Binding Beads	If specialized 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".
Capture Beads	If specialized 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".
Index Primer Mix for ILM 17-24	If specialized 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".
Index Primer Mix for ILM 25-32	If specialized 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

: Nuclease-Free Water

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Library Wash Buffer

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers,

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Hyb Wash Buffer 1	waterways, soil or air). Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hyb Wash Buffer 2	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Resuspension Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
End Prep Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
End Prep Enzyme	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Ligation Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Ligation Enzyme	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Adapter for ILM	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hyb Blocker	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hyb Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Hyb Enhancer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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2X Amplification Mastermix	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Library Binding Beads	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Capture Beads	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Index Primer Mix for ILM 17-24	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Index Primer Mix for ILM 25-32	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Nuclease-Free Water

Library Wash 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.
Hyb Wash Buffer 1	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.
Hyb Wash Buffer 2	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.
Resuspension 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.
End Prep Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.

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	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.
End Prep Enzyme	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.
Ligation 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.
Ligation Enzyme	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.
Adapter for ILM	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.
Hyb Blocker	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.
Hyb 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.
Hyb Enhancer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
2X Amplification Mastermix	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.
Library Binding Beads	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.
Capture Beads	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.

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Index Primer Mix for ILM 17-24

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.

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.

Index Primer Mix for ILM 25-32

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures

: Nuclease-Free Water

Put on appropriate personal protective equipment (see Section 8).

Library Wash Buffer

Put on appropriate personal protective equipment (see Section 8).

Hyb Wash Buffer 1

Put on appropriate personal protective equipment (see Section 8).

Hyb Wash Buffer 2

Put on appropriate personal protective equipment (see Section 8).

Resuspension Buffer

Put on appropriate personal protective equipment (see Section 8).

End Prep Buffer

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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.

End Prep Enzyme

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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.

Ligation Buffer

Put on appropriate personal protective equipment (see Section 8).

Ligation Enzyme

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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.

Adapter for ILM

Put on appropriate personal protective equipment (see Section 8).

Hyb Blocker

Put on appropriate personal protective equipment

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Hyb Buffer	(see Section 8). Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor 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.
Hyb Enhancer	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
2X Amplification Mastermix	Put on appropriate personal protective equipment (see Section 8).
Library Binding Beads	Put on appropriate personal protective equipment (see Section 8).
Capture Beads	Put on appropriate personal protective equipment (see Section 8).
Index Primer Mix for ILM 17-24	Put on appropriate personal protective equipment (see Section 8).
Index Primer Mix for ILM 25-32	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Nuclease-Free Water 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.
Library Wash 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.
Hyb Wash Buffer 1	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.
Hyb Wash Buffer 2	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face

Section 7. Handling and storage

Resuspension Buffer	before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
End Prep 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.
End Prep Enzyme	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.
Ligation 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.
Ligation Enzyme	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.
Adapter for ILM	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.
Hyb Blocker	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.
Hyb 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.

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Hyb Enhancer	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 Amplification Mastermix	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.
Library Binding Beads	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.
Capture Beads	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.
Index Primer Mix for ILM 17-24	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.
Index Primer Mix for ILM 25-32	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

: Nuclease-Free Water	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Library Wash 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

Section 7. Handling and storage

Hyb Wash Buffer 1

opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Hyb Wash Buffer 2

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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Resuspension 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

End Prep 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

End Prep Enzyme

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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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Ligation 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Ligation Enzyme	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Adapter for ILM	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Hyb Blocker	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Hyb 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Hyb Enhancer	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

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	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
2X Amplification Mastermix	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Library Binding Beads	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Capture Beads	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Index Primer Mix for ILM 17-24	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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Index Primer Mix for ILM 25-32	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 unlabeled

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containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations

Nuclease-Free Water	Industrial applications, Professional applications.
Library Wash Buffer	Industrial applications, Professional applications.
Hyb Wash Buffer 1	Industrial applications, Professional applications.
Hyb Wash Buffer 2	Industrial applications, Professional applications.
Resuspension Buffer	Industrial applications, Professional applications.
End Prep Buffer	Industrial applications, Professional applications.
End Prep Enzyme	Industrial applications, Professional applications.
Ligation Buffer	Industrial applications, Professional applications.
Ligation Enzyme	Industrial applications, Professional applications.
Adapter for ILM	Industrial applications, Professional applications.
Hyb Blocker	Industrial applications, Professional applications.
Hyb Buffer	Industrial applications, Professional applications.
Hyb Enhancer	Industrial applications, Professional applications.
2X Amplification Mastermix	Industrial applications, Professional applications.
Library Binding Beads	Industrial applications, Professional applications.
Capture Beads	Industrial applications, Professional applications.
Index Primer Mix for ILM 17-24	Industrial applications, Professional applications.
Index Primer Mix for ILM 25-32	Industrial applications, Professional applications.

Industrial sector specific solutions

Nuclease-Free Water	Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Resuspension Buffer	Not available.
End Prep Buffer	Not available.
End Prep Enzyme	Not available.
Ligation Buffer	Not available.
Ligation Enzyme	Not available.
Adapter for ILM	Not available.
Hyb Blocker	Not available.
Hyb Buffer	Not available.
Hyb Enhancer	Not available.
2X Amplification Mastermix	Not available.
Library Binding Beads	Not available.
Capture Beads	Not available.
Index Primer Mix for ILM 17-24	Not available.
Index Primer Mix for ILM 25-32	Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Nuclease-Free Water water	None.
Hyb Wash Buffer 1 Sodium dodecyl sulphate	None.
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	None.

Section 8. Exposure controls/personal protection

End Prep Buffer Magnesium chloride	None.
End Prep Enzyme Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust CAL OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: respirable fraction TWA: 10 mg/m ³ 8 hours. Form: total dust
Ligation Enzyme Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust CAL OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: respirable fraction TWA: 10 mg/m ³ 8 hours. Form: total dust
Hyb Buffer tetramethylammonium chloride Dextran sulfate sodium Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	None. None. None.
Hyb Enhancer Formamide	ACGIH TLV (United States, 1/2023). Absorbed through skin. TWA: 1 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 20 ppm 8 hours. TWA: 30 mg/m ³ 8 hours. STEL: 30 ppm 15 minutes. STEL: 45 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2020). Absorbed through skin. TWA: 10 ppm 10 hours. TWA: 15 mg/m ³ 10 hours. CAL OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 18 mg/m ³ 8 hours. TWA: 10 ppm 8 hours.
2X Amplification Mastermix Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable

Section 8. Exposure controls/personal protection

fraction
 TWA: 10 mg/m³ 8 hours. Form: Total dust
OSHA PEL (United States, 5/2018).
 TWA: 5 mg/m³ 8 hours. Form: Respirable
 fraction
 TWA: 15 mg/m³ 8 hours. Form: Total dust
CAL OSHA PEL (United States, 5/2018).
 TWA: 5 mg/m³ 8 hours. Form: respirable
 fraction
 TWA: 10 mg/m³ 8 hours. Form: total dust

Biological exposure indices

No exposure indices known.

8.2 Exposure controls

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor 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.
- 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: safety glasses with side-shields.
- 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	:	Nuclease-Free Water	Liquid.
		Library Wash Buffer	Liquid.
		Hyb Wash Buffer 1	Liquid.
		Hyb Wash Buffer 2	Liquid.
		Resuspension Buffer	Liquid.
		End Prep Buffer	Liquid.
		End Prep Enzyme	Liquid.
		Ligation Buffer	Liquid.
		Ligation Enzyme	Liquid.
		Adapter for ILM	Liquid.
		Hyb Blocker	Liquid.
		Hyb Buffer	Liquid.
		Hyb Enhancer	Liquid.
		2X Amplification Mastermix	Liquid.
		Library Binding Beads	Liquid.
		Capture Beads	Liquid.
		Index Primer Mix for ILM 17-24	Liquid.
		Index Primer Mix for ILM 25-32	Liquid.
	Color	:	Nuclease-Free Water
		Library Wash Buffer	Not available.
		Hyb Wash Buffer 1	Not available.
		Hyb Wash Buffer 2	Not available.
		Resuspension Buffer	Not available.
		End Prep Buffer	Not available.
		End Prep Enzyme	Not available.
		Ligation Buffer	Not available.
		Ligation Enzyme	Not available.
		Adapter for ILM	Not available.
		Hyb Blocker	Not available.
		Hyb Buffer	Not available.
		Hyb Enhancer	Not available.
		2X Amplification Mastermix	Not available.
		Library Binding Beads	Not available.
		Capture Beads	Not available.
		Index Primer Mix for ILM 17-24	Not available.
		Index Primer Mix for ILM 25-32	Not available.
Odor		:	Nuclease-Free Water
		Library Wash Buffer	Not available.
		Hyb Wash Buffer 1	Not available.
		Hyb Wash Buffer 2	Not available.
		Resuspension Buffer	Not available.
		End Prep Buffer	Not available.
		End Prep Enzyme	Not available.
		Ligation Buffer	Not available.
		Ligation Enzyme	Not available.
		Adapter for ILM	Not available.
		Hyb Blocker	Not available.
		Hyb Buffer	Not available.
		Hyb Enhancer	Not available.
		2X Amplification Mastermix	Not available.
		Library Binding Beads	Not available.
		Capture Beads	Not available.
		Index Primer Mix for ILM 17-24	Not available.
		Index Primer Mix for ILM 25-32	Not available.

Section 9. Physical and chemical properties and safety characteristics

Odor threshold	:	Nuclease-Free Water	Not available.
		Library Wash Buffer	Not available.
		Hyb Wash Buffer 1	Not available.
		Hyb Wash Buffer 2	Not available.
		Resuspension Buffer	Not available.
		End Prep Buffer	Not available.
		End Prep Enzyme	Not available.
		Ligation Buffer	Not available.
		Ligation Enzyme	Not available.
		Adapter for ILM	Not available.
		Hyb Blocker	Not available.
		Hyb Buffer	Not available.
		Hyb Enhancer	Not available.
		2X Amplification Mastermix	Not available.
		Library Binding Beads	Not available.
		Capture Beads	Not available.
	Index Primer Mix for ILM 17-24	Not available.	
	Index Primer Mix for ILM 25-32	Not available.	
pH	:	Nuclease-Free Water	7
		Library Wash Buffer	Not available.
		Hyb Wash Buffer 1	7.2 to 7.6
		Hyb Wash Buffer 2	7.2 to 7.6
		Resuspension Buffer	8
		End Prep Buffer	8
		End Prep Enzyme	7.5
		Ligation Buffer	8
		Ligation Enzyme	7.5
		Adapter for ILM	8
		Hyb Blocker	8
		Hyb Buffer	7.5
		Hyb Enhancer	Not available.
		2X Amplification Mastermix	Not available.
		Library Binding Beads	8
		Capture Beads	Not available.
	Index Primer Mix for ILM 17-24	8	
	Index Primer Mix for ILM 25-32	8	
Melting point/freezing point	:	Nuclease-Free Water	0°C (32°F)
		Library Wash Buffer	Not available.
		Hyb Wash Buffer 1	0°C (32°F)
		Hyb Wash Buffer 2	0°C (32°F)
		Resuspension Buffer	0°C (32°F)
		End Prep Buffer	Not available.
		End Prep Enzyme	Not available.
		Ligation Buffer	Not available.
		Ligation Enzyme	Not available.
		Adapter for ILM	0°C (32°F)
		Hyb Blocker	0°C (32°F)
		Hyb Buffer	Not available.
		Hyb Enhancer	Not available.
		2X Amplification Mastermix	Not available.
		Library Binding Beads	Not available.
		Capture Beads	Not available.
	Index Primer Mix for ILM 17-24	0°C (32°F)	
	Index Primer Mix for ILM 25-32	0°C (32°F)	

Section 9. Physical and chemical properties and safety characteristics

Boiling point, initial boiling point, and boiling range	Nuclease-Free Water	100°C (212°F)
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	100°C (212°F)
	Hyb Wash Buffer 2	100°C (212°F)
	Resuspension Buffer	100°C (212°F)
	End Prep Buffer	Not available.
	End Prep Enzyme	Not available.
	Ligation Buffer	Not available.
	Ligation Enzyme	Not available.
	Adapter for ILM	100°C (212°F)
	Hyb Blocker	100°C (212°F)
	Hyb Buffer	Not available.
	Hyb Enhancer	Not available.
	2X Amplification Mastermix	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Index Primer Mix for ILM 17-24	100°C (212°F)
Index Primer Mix for ILM 25-32	100°C (212°F)	

Flash point

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
End Prep Enzyme						
Glycerol	-	-	-	177	350.6	-
Ligation Enzyme						
Glycerol	-	-	-	177	350.6	-
Hyb Enhancer						
Formamide	150	302	-	152	305.6	DIN EN ISO 2592
2X Amplification Mastermix						
Glycerol	-	-	-	177	350.6	-

Evaporation rate

Nuclease-Free Water	Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Resuspension Buffer	Not available.
End Prep Buffer	Not available.
End Prep Enzyme	Not available.
Ligation Buffer	Not available.
Ligation Enzyme	Not available.
Adapter for ILM	Not available.
Hyb Blocker	Not available.
Hyb Buffer	Not available.
Hyb Enhancer	Not available.
2X Amplification Mastermix	Not available.
Library Binding Beads	Not available.
Capture Beads	Not available.
Index Primer Mix for ILM 17-24	Not available.
Index Primer Mix for ILM 25-32	Not available.

Section 9. Physical and chemical properties and safety characteristics

Flammability	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Lower and upper explosion limit/flammability limit	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Vapor pressure	: Nuclease-Free Water	2.3 kPa (17.5 mm Hg) [room temperature] 12.3 kPa (92.258 mm Hg) [50°C (122°F)]

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Library Wash Buffer						
water	17.5	2.3	-	92.258	12.3	-
Hyb Wash Buffer 1						
water	17.5	2.3	-	92.258	12.3	-
Hyb Wash Buffer 2						
water	17.5	2.3	-	92.258	12.3	-
Resuspension						

Section 9. Physical and chemical properties and safety characteristics

Buffer							
water	17.5	2.3	-	92.258	12.3	-	
End Prep Buffer							
water	17.5	2.3	-	92.258	12.3	-	
End Prep Enzyme							
water	17.5	2.3	-	92.258	12.3	-	
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-	
Ligation Buffer							
water	17.5	2.3	-	92.258	12.3	-	
Ligation Enzyme							
water	17.5	2.3	-	92.258	12.3	-	
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-	
Adapter for ILM							
water	17.5	2.3	-	92.258	12.3	-	
Hyb Blocker							
water	17.5	2.3	-	92.258	12.3	-	
Hyb Buffer							
water	17.5	2.3	-	92.258	12.3	-	
tetramethylammonium chloride	0.000000001	0.00000000013	EU A.4	-	-	-	
Hyb Enhancer							
Formamide	0.045	0.006	-	-	-	-	
2X Amplification Mastermix							
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-	
Library Binding Beads							
water	17.5	2.3	-	92.258	12.3	-	

Section 9. Physical and chemical properties and safety characteristics

Capture Beads							
water	17.5	2.3	-	92.258	12.3	-	
Index Primer Mix for ILM 17-24							
water	17.5	2.3	-	92.258	12.3	-	
Index Primer Mix for ILM 25-32							
water	17.5	2.3	-	92.258	12.3	-	

Relative vapor density :

- Nuclease-Free Water 0.62 [Air = 1]
- Library Wash Buffer Not available.
- Hyb Wash Buffer 1 Not available.
- Hyb Wash Buffer 2 Not available.
- Resuspension Buffer Not available.
- End Prep Buffer Not available.
- End Prep Enzyme Not available.
- Ligation Buffer Not available.
- Ligation Enzyme Not available.
- Adapter for ILM Not available.
- Hyb Blocker Not available.
- Hyb Buffer Not available.
- Hyb Enhancer Not available.
- 2X Amplification Mastermix Not available.
- Library Binding Beads Not available.
- Capture Beads Not available.
- Index Primer Mix for ILM 17-24 Not available.
- Index Primer Mix for ILM 25-32 Not available.

Relative density :

- Nuclease-Free Water 1
- Library Wash Buffer Not available.
- Hyb Wash Buffer 1 Not available.
- Hyb Wash Buffer 2 Not available.
- Resuspension Buffer Not available.
- End Prep Buffer Not available.
- End Prep Enzyme Not available.
- Ligation Buffer Not available.
- Ligation Enzyme Not available.
- Adapter for ILM Not available.
- Hyb Blocker Not available.
- Hyb Buffer Not available.
- Hyb Enhancer Not available.
- 2X Amplification Mastermix Not available.
- Library Binding Beads Not available.
- Capture Beads Not available.
- Index Primer Mix for ILM 17-24 Not available.
- Index Primer Mix for ILM 25-32 Not available.

Section 9. Physical and chemical properties and safety characteristics

Solubility(ies)	Media	Result
	Nuclease-Free Water water	Soluble
	Library Wash Buffer water	Soluble
	Hyb Wash Buffer 1 water	Soluble
	Hyb Wash Buffer 2 water	Soluble
	Resuspension Buffer water	Soluble
	End Prep Buffer water	Soluble
	End Prep Enzyme water	Soluble
	Ligation Buffer water	Soluble
	Ligation Enzyme water	Soluble
	Adapter for ILM water	Soluble
	Hyb Blocker water	Soluble
	Hyb Buffer water	Soluble
	Hyb Enhancer water	Soluble
	Library Binding Beads water	Soluble
	Capture Beads water	Soluble
	Index Primer Mix for ILM 17-24 water	Soluble
	Index Primer Mix for ILM 25-32 water	Soluble

Partition coefficient: n-octanol/water	Media	Result
	Nuclease-Free Water	-1.38
	Library Wash Buffer	Not applicable.
	Hyb Wash Buffer 1	Not applicable.
	Hyb Wash Buffer 2	Not applicable.
	Resuspension Buffer	Not applicable.
	End Prep Buffer	Not applicable.
	End Prep Enzyme	Not applicable.
	Ligation Buffer	Not applicable.
	Ligation Enzyme	Not applicable.
	Adapter for ILM	Not applicable.
	Hyb Blocker	Not applicable.
	Hyb Buffer	Not applicable.
	Hyb Enhancer	Not applicable.
	2X Amplification Mastermix	Not applicable.
	Library Binding Beads	Not applicable.
	Capture Beads	Not applicable.
	Index Primer Mix for ILM 17-24	Not applicable.
	Index Primer Mix for ILM 25-32	Not applicable.

Auto-ignition temperature :

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	°C	°F	Method
End Prep Enzyme			
Glycerol	370	698	-
Ligation Enzyme			
Glycerol	370	698	-
Hyb Enhancer			
Formamide	>500	>932	ASTM D 2155-66
2X Amplification Mastermix			
Glycerol	370	698	-

Decomposition temperature :

Nuclease-Free Water	Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Resuspension Buffer	Not available.
End Prep Buffer	Not available.
End Prep Enzyme	Not available.
Ligation Buffer	Not available.
Ligation Enzyme	Not available.
Adapter for ILM	Not available.
Hyb Blocker	Not available.
Hyb Buffer	Not available.
Hyb Enhancer	Not available.
2X Amplification Mastermix	Not available.
Library Binding Beads	Not available.
Capture Beads	Not available.
Index Primer Mix for ILM 17-24	Not available.
Index Primer Mix for ILM 25-32	Not available.

Viscosity :

Nuclease-Free Water	Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Resuspension Buffer	Not available.
End Prep Buffer	Not available.
End Prep Enzyme	Not available.
Ligation Buffer	Not available.
Ligation Enzyme	Not available.
Adapter for ILM	Not available.
Hyb Blocker	Not available.
Hyb Buffer	Not available.
Hyb Enhancer	Not available.
2X Amplification Mastermix	Not available.
Library Binding Beads	Not available.
Capture Beads	Not available.
Index Primer Mix for ILM 17-24	Not available.
Index Primer Mix for ILM 25-32	Not available.

Particle characteristics

Section 9. Physical and chemical properties and safety characteristics

Median particle size	:	Nuclease-Free Water	Not applicable.
		Library Wash Buffer	Not applicable.
		Hyb Wash Buffer 1	Not applicable.
		Hyb Wash Buffer 2	Not applicable.
		Resuspension Buffer	Not applicable.
		End Prep Buffer	Not applicable.
		End Prep Enzyme	Not applicable.
		Ligation Buffer	Not applicable.
		Ligation Enzyme	Not applicable.
		Adapter for ILM	Not applicable.
		Hyb Blocker	Not applicable.
		Hyb Buffer	Not applicable.
		Hyb Enhancer	Not applicable.
		2X Amplification Mastermix	Not applicable.
		Library Binding Beads	Not applicable.
		Capture Beads	Not applicable.
		Index Primer Mix for ILM 17-24	Not applicable.
		Index Primer Mix for ILM 25-32	Not applicable.

Section 10. Stability and reactivity

10.1 Reactivity	:	Nuclease-Free Water	No specific test data related to reactivity available for this product or its ingredients.
		Library Wash Buffer	No specific test data related to reactivity available for this product or its ingredients.
		Hyb Wash Buffer 1	No specific test data related to reactivity available for this product or its ingredients.
		Hyb Wash Buffer 2	No specific test data related to reactivity available for this product or its ingredients.
		Resuspension Buffer	No specific test data related to reactivity available for this product or its ingredients.
		End Prep Buffer	No specific test data related to reactivity available for this product or its ingredients.
		End Prep Enzyme	No specific test data related to reactivity available for this product or its ingredients.
		Ligation Buffer	No specific test data related to reactivity available for this product or its ingredients.
		Ligation Enzyme	No specific test data related to reactivity available for this product or its ingredients.
		Adapter for ILM	No specific test data related to reactivity available for this product or its ingredients.
		Hyb Blocker	No specific test data related to reactivity available for this product or its ingredients.
		Hyb Buffer	No specific test data related to reactivity available for this product or its ingredients.
		Hyb Enhancer	No specific test data related to reactivity available for this product or its ingredients.
		2X Amplification Mastermix	No specific test data related to reactivity available for this product or its ingredients.
		Library Binding Beads	No specific test data related to reactivity available for this product or its ingredients.
		Capture Beads	No specific test data related to reactivity available for this product or its ingredients.
		Index Primer Mix for ILM 17-24	No specific test data related to reactivity available for this product or its ingredients.
		Index Primer Mix for ILM 25-32	No specific test data related to reactivity available for this product or its ingredients.

Section 10. Stability and reactivity

10.2 Chemical stability	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32	The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32	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. 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. 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. 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. 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. 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.

Section 10. Stability and reactivity

10.4 Conditions to avoid	<ul style="list-style-type: none"> : Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32 	<ul style="list-style-type: none"> No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
10.5 Incompatible materials	<ul style="list-style-type: none"> : Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32 	<ul style="list-style-type: none"> May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.

Section 10. Stability and reactivity

10.6 Hazardous decomposition products	: Nuclease-Free Water	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Library Wash Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Wash Buffer 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Wash Buffer 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Resuspension Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	End Prep Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	End Prep Enzyme	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Ligation Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Ligation Enzyme	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Adapter for ILM	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Blocker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Enhancer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	2X Amplification Mastermix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Library Binding Beads	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Capture Beads	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Index Primer Mix for ILM 17-24	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Index Primer Mix for ILM 25-32	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
Hyb Wash Buffer 1 Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-
End Prep Buffer Magnesium chloride	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-
End Prep Enzyme Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Ligation Enzyme Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Hyb Buffer tetramethylammonium chloride	LD50 Dermal	Rabbit - Male, Female	200 to 500 mg/kg	-
	LD50 Oral	Rat	50 mg/kg	-
Dextran sulfate sodium	LD50 Oral	Rat	20600 mg/kg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-
Hyb Enhancer Formamide	LC50 Inhalation Dusts and mists LD50 Dermal LD50 Oral	Rat - Male Rabbit Rat	>21 mg/l 17 g/kg 5570 mg/kg	4 hours - -
2X Amplification Mastermix Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Hyb Wash Buffer 1 Sodium dodecyl sulphate	Eyes - Mild irritant Eyes - Moderate irritant Eyes - Moderate irritant	Rabbit Rabbit Rabbit	- - -	250 ug 10 mg 24 hours 100 mg	- - -
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-

Section 11. Toxicological information

Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-
End Prep Enzyme Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Ligation Enzyme Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Hyb Buffer Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-
2X Amplification Mastermix Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

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)

Name	Category	Route of exposure	Target organs
Hyb Wash Buffer 1 Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation
Hyb Buffer tetramethylammonium chloride	Category 1	oral	central nervous system (CNS)
Dextran sulfate sodium	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Hyb Enhancer Formamide	Category 2	oral	blood

Aspiration hazard

Not available.

Information on the likely routes of exposure

Nuclease-Free Water	Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Resuspension Buffer	Not available.
End Prep Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
End Prep Enzyme	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Ligation Buffer	Not available.
Ligation Enzyme	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Adapter for ILM	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Hyb Blocker	Not available.
Hyb Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Hyb Enhancer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
2X Amplification Mastermix	Not available.
Library Binding Beads	Not available.
Capture Beads	Not available.
Index Primer Mix for ILM 17-24	Not available.
Index Primer Mix for ILM 25-32	Not available.

Potential acute health effects

Eye contact

Nuclease-Free Water	No known significant effects or critical hazards.
Library Wash Buffer	No known significant effects or critical hazards.
Hyb Wash Buffer 1	No known significant effects or critical hazards.
Hyb Wash Buffer 2	No known significant effects or critical hazards.
Resuspension Buffer	No known significant effects or critical hazards.
End Prep Buffer	No known significant effects or critical hazards.
End Prep Enzyme	Causes eye irritation.
Ligation Buffer	No known significant effects or critical hazards.
Ligation Enzyme	Causes eye irritation.
Adapter for ILM	No known significant effects or critical hazards.
Hyb Blocker	No known significant effects or critical hazards.
Hyb Buffer	No known significant effects or critical hazards.
Hyb Enhancer	No known significant effects or critical hazards.
2X Amplification Mastermix	No known significant effects or critical hazards.
Library Binding Beads	No known significant effects or critical hazards.
Capture Beads	No known significant effects or critical hazards.
Index Primer Mix for ILM 17-24	No known significant effects or critical hazards.
Index Primer Mix for ILM 25-32	No known significant effects or critical hazards.

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Inhalation	<ul style="list-style-type: none"> : Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32 	<p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>Causes damage to organs following a single exposure if inhaled.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p>
Skin contact	<ul style="list-style-type: none"> : Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32 	<p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>Causes damage to organs following a single exposure in contact with skin. Causes skin irritation.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p>
Ingestion	<ul style="list-style-type: none"> : Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32 	<p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>Harmful if swallowed. Causes damage to organs following a single exposure if swallowed.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p> <p>No known significant effects or critical hazards.</p>

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Nuclease-Free Water	No specific data.
		Library Wash Buffer	No specific data.
		Hyb Wash Buffer 1	No specific data.
		Hyb Wash Buffer 2	No specific data.
		Resuspension Buffer	No specific data.
		End Prep Buffer	No specific data.
		End Prep Enzyme	Adverse symptoms may include the following: irritation watering redness
		Ligation Buffer	No specific data.
		Ligation Enzyme	Adverse symptoms may include the following: irritation watering redness
		Adapter for ILM	No specific data.
		Hyb Blocker	No specific data.
		Hyb Buffer	Adverse symptoms may include the following: pain or irritation watering redness
		Hyb Enhancer	No specific data.
		2X Amplification Mastermix	No specific data.
		Library Binding Beads	No specific data.
	Capture Beads	No specific data.	
	Index Primer Mix for ILM 17-24	No specific data.	
	Index Primer Mix for ILM 25-32	No specific data.	
Inhalation	:	Nuclease-Free Water	No specific data.
		Library Wash Buffer	No specific data.
		Hyb Wash Buffer 1	No specific data.
		Hyb Wash Buffer 2	No specific data.
		Resuspension Buffer	No specific data.
		End Prep Buffer	No specific data.
		End Prep Enzyme	No specific data.
		Ligation Buffer	No specific data.
		Ligation Enzyme	No specific data.
		Adapter for ILM	No specific data.
		Hyb Blocker	No specific data.
		Hyb Buffer	No specific data.
		Hyb Enhancer	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		2X Amplification Mastermix	No specific data.
		Library Binding Beads	No specific data.
	Capture Beads	No specific data.	
	Index Primer Mix for ILM 17-24	No specific data.	
	Index Primer Mix for ILM 25-32	No specific data.	
Skin contact	:	Nuclease-Free Water	No specific data.
		Library Wash Buffer	No specific data.
		Hyb Wash Buffer 1	No specific data.
		Hyb Wash Buffer 2	No specific data.
		Resuspension Buffer	No specific data.
		End Prep Buffer	No specific data.
		End Prep Enzyme	No specific data.
		Ligation Buffer	No specific data.
		Ligation Enzyme	No specific data.
		Adapter for ILM	No specific data.

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Ingestion	Hyb Blocker	No specific data.
	Hyb Buffer	Adverse symptoms may include the following: irritation redness
	Hyb Enhancer	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
	2X Amplification Mastermix	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Index Primer Mix for ILM 17-24	No specific data.
	Index Primer Mix for ILM 25-32	No specific data.
	: Nuclease-Free Water	No specific data.
	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Resuspension Buffer	No specific data.
	End Prep Buffer	No specific data.
	End Prep Enzyme	No specific data.
Ligation Buffer	No specific data.	
Ligation Enzyme	No specific data.	
Adapter for ILM	No specific data.	
Hyb Blocker	No specific data.	
Hyb Buffer	No specific data.	
Hyb Enhancer	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations	
2X Amplification Mastermix	No specific data.	
Library Binding Beads	No specific data.	
Capture Beads	No specific data.	
Index Primer Mix for ILM 17-24	No specific data.	
Index Primer Mix for ILM 25-32	No specific data.	

Delayed and immediate effects and also 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	: Nuclease-Free Water	No known significant effects or critical hazards.
	Library Wash Buffer	No known significant effects or critical hazards.
	Hyb Wash Buffer 1	No known significant effects or critical hazards.
	Hyb Wash Buffer 2	No known significant effects or critical hazards.
	Resuspension Buffer	No known significant effects or critical hazards.
	End Prep Buffer	No known significant effects or critical hazards.
	End Prep Enzyme	No known significant effects or critical hazards.
	Ligation Buffer	No known significant effects or critical hazards.
	Ligation Enzyme	No known significant effects or critical hazards.
	Adapter for ILM	No known significant effects or critical hazards.
	Hyb Blocker	No known significant effects or critical hazards.
	Hyb Buffer	No known significant effects or critical hazards.

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	Hyb Enhancer	May cause damage to organs through prolonged or repeated exposure.
	2X Amplification Mastermix	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Index Primer Mix for ILM 17-24	No known significant effects or critical hazards.
	Index Primer Mix for ILM 25-32	No known significant effects or critical hazards.
Carcinogenicity	: Nuclease-Free Water	No known significant effects or critical hazards.
	Library Wash Buffer	No known significant effects or critical hazards.
	Hyb Wash Buffer 1	No known significant effects or critical hazards.
	Hyb Wash Buffer 2	No known significant effects or critical hazards.
	Resuspension Buffer	No known significant effects or critical hazards.
	End Prep Buffer	No known significant effects or critical hazards.
	End Prep Enzyme	No known significant effects or critical hazards.
	Ligation Buffer	No known significant effects or critical hazards.
	Ligation Enzyme	No known significant effects or critical hazards.
	Adapter for ILM	No known significant effects or critical hazards.
	Hyb Blocker	No known significant effects or critical hazards.
	Hyb Buffer	No known significant effects or critical hazards.
	Hyb Enhancer	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
	2X Amplification Mastermix	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Index Primer Mix for ILM 17-24	No known significant effects or critical hazards.
	Index Primer Mix for ILM 25-32	No known significant effects or critical hazards.
Mutagenicity	: Nuclease-Free Water	No known significant effects or critical hazards.
	Library Wash Buffer	No known significant effects or critical hazards.
	Hyb Wash Buffer 1	No known significant effects or critical hazards.
	Hyb Wash Buffer 2	No known significant effects or critical hazards.
	Resuspension Buffer	No known significant effects or critical hazards.
	End Prep Buffer	No known significant effects or critical hazards.
	End Prep Enzyme	No known significant effects or critical hazards.
	Ligation Buffer	No known significant effects or critical hazards.
	Ligation Enzyme	No known significant effects or critical hazards.
	Adapter for ILM	No known significant effects or critical hazards.
	Hyb Blocker	No known significant effects or critical hazards.
	Hyb Buffer	No known significant effects or critical hazards.
	Hyb Enhancer	No known significant effects or critical hazards.
	2X Amplification Mastermix	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Index Primer Mix for ILM 17-24	No known significant effects or critical hazards.
	Index Primer Mix for ILM 25-32	No known significant effects or critical hazards.
Reproductive toxicity	: Nuclease-Free Water	No known significant effects or critical hazards.
	Library Wash Buffer	No known significant effects or critical hazards.
	Hyb Wash Buffer 1	No known significant effects or critical hazards.
	Hyb Wash Buffer 2	No known significant effects or critical hazards.
	Resuspension Buffer	No known significant effects or critical hazards.
	End Prep Buffer	No known significant effects or critical hazards.
	End Prep Enzyme	No known significant effects or critical hazards.
	Ligation Buffer	No known significant effects or critical hazards.
	Ligation Enzyme	No known significant effects or critical hazards.
	Adapter for ILM	No known significant effects or critical hazards.
	Hyb Blocker	No known significant effects or critical hazards.
	Hyb Buffer	No known significant effects or critical hazards.
	Hyb Enhancer	May damage fertility or the unborn child.
	2X Amplification Mastermix	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.

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Capture Beads

No known significant effects or critical hazards.

Index Primer Mix for ILM 17-24

No known significant effects or critical hazards.

Index Primer Mix for ILM 25-32

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 (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Library Wash Buffer Library Wash Buffer	37635.4	N/A	N/A	N/A	N/A
Hyb Wash Buffer 1 Hyb Wash Buffer 1 Sodium dodecyl sulphate	171428.6 1288	N/A N/A	N/A N/A	N/A N/A	N/A 1.5
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	500	N/A	N/A	N/A	N/A
End Prep Buffer End Prep Buffer Magnesium chloride	229323.3 2800	204752.9 2500	N/A N/A	N/A N/A	N/A N/A
End Prep Enzyme Glycerol	12600	N/A	N/A	N/A	N/A
Ligation Enzyme Glycerol	12600	N/A	N/A	N/A	N/A
Hyb Buffer Hyb Buffer tetramethylammonium chloride Dextran sulfate sodium Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	450.2 50 20600 500	2737.2 300 N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
Hyb Enhancer Formamide	5570	17000	N/A	N/A	N/A
2X Amplification Mastermix Glycerol	12600	N/A	N/A	N/A	N/A
Library Binding Beads Library Binding Beads	17855.8	N/A	N/A	N/A	N/A

Other information

: End Prep Buffer

Adverse symptoms may include the following: May cause skin sensitization.

Adapter for ILM

Adverse symptoms may include the following: May cause skin sensitization.

Hyb Enhancer

Adverse symptoms may include the following: May cause eye irritation. May cause skin irritation.

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Hyb Wash Buffer 1 Sodium dodecyl sulphate	Acute EC50 1200 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	Acute LC50 900 µg/l Marine water	Crustaceans - <i>Artemia salina</i> - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours
	Acute LC50 590 µg/l Fresh water	Fish - <i>Cirrhinus mrigala</i> - Larvae	96 hours
	Chronic NOEC 1.25 mg/l Marine water	Algae - <i>Ulva fasciata</i> - Zoea	96 hours
	Chronic NOEC 1 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	21 days
	Chronic NOEC 3.2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Chronic NOEC 0.8 mg/l Fresh water	Fish - <i>Gambusia holbrooki</i>	28 days
	Acute EC50 210 µg/l Fresh water	Algae - <i>Selenastrum sp.</i>	96 hours
	Acute LC50 10800 µg/l Marine water	Crustaceans - <i>Pandalus montagui</i> - Adult	48 hours
End Prep Buffer Magnesium chloride	Acute LC50 2.518 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 7200 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Acute EC50 >100 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Acute EC50 180000 µg/l Fresh water	Crustaceans - <i>Eudiaptomus padanus ssp. padanus</i> - Adult	48 hours
	Acute IC50 6.8 mg/l Fresh water	Aquatic plants - <i>Lemna aequinoctialis</i>	96 hours
	Acute LC50 32000 µg/l Fresh water	Daphnia - <i>Daphnia hyalina</i> - Adult	48 hours
End Prep Enzyme Glycerol	Acute LC50 2120 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute NOEC 100 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Chronic NOEC 0.1 mg/l Fresh water	Fish - <i>Cyprinus carpio</i>	35 days
	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Ligation Enzyme Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>
Hyb Buffer tetramethylammonium chloride Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-		Acute LC50 462 mg/l Fresh water	Fish - <i>Pimephales promelas</i>
	Acute EC50 210 µg/l Fresh water	Algae - <i>Selenastrum sp.</i>	96 hours
	Acute LC50 10800 µg/l Marine water	Crustaceans - <i>Pandalus montagui</i> - Adult	48 hours
	Acute LC50 2.518 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 7200 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Hyb Enhancer			

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Formamide	Acute EC50 >500 mg/l Fresh water Acute EC50 >500 mg/l Fresh water Acute LC50 6569 mg/l Fresh water Acute NOEC 4640 mg/l Fresh water Acute NOEC 4640 mg/l Fresh water	Algae Daphnia Fish Algae Fish	72 hours 48 hours 96 hours 72 hours 96 hours
2X Amplification Mastermix Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Hyb Wash Buffer 1 Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	95 % - Readily - 28 days	20 mg/l	-
End Prep Enzyme Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Ligation Enzyme Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Hyb Enhancer Formamide	OECD 301A Ready Biodegradability - DOC Die-Away Test	99 % - Readily - 28 days	-	-
2X Amplification Mastermix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Nuclease-Free Water water	-	-	Readily
Hyb Wash Buffer 1 Sodium dodecyl sulphate	-	-	Readily
Hyb Buffer tetramethylammonium chloride	-	-	Readily
Hyb Enhancer Formamide	-	-	Readily

Section 12. Ecological information

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Nuclease-Free Water water	-1.38	-	Low
Hyb Wash Buffer 1 Sodium dodecyl sulphate	-2.03	-	Low
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	2.7	78.67	Low
End Prep Enzyme Glycerol	-1.76	-	Low
Ligation Enzyme Glycerol	-1.76	-	Low
Hyb Buffer tetramethylammonium chloride	<-1.6	-	Low
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	2.7	78.67	Low
Hyb Enhancer Formamide	-0.82	-	Low
2X Amplification Mastermix Glycerol	-1.76	-	Low

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

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

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

U.S. Federal regulations : **TSCA 5(a)2 proposed significant new use rules:** Nonylphenol, ethoxylated
TSCA 8(a) PAIR: Formamide; Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-; Nonylphenol, ethoxylated; Polyoxyethylene octyl phenyl ether
TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Capture Beads Sodium azide	<0.1	Yes.	500	-	1000	-

SARA 304 RQ : 72000000 lbs / 32688000 kg

SARA 311/312

Section 15. Regulatory information

Classification	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. EYE IRRITATION - Category 2B Not applicable. EYE IRRITATION - Category 2B Not applicable. Not applicable. ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
	Hyb Enhancer	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
	2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

Composition/information on ingredients

Name	%	Classification
End Prep Enzyme Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
Ligation Enzyme Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
Hyb Buffer tetramethylammonium chloride	≥10 - <15	ACUTE TOXICITY (oral) - Category 2 ACUTE TOXICITY (dermal) - Category 3 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
Dextran sulfate sodium	≤3	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Hyb Enhancer Formamide	≥90	CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
2X Amplification Mastermix Glycerol	<10	EYE IRRITATION - Category 2B

SARA 313

	Product name	CAS number	%
Supplier notification	Hyb Enhancer Formamide	75-12-7	≥90

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: GLYCERINE MIST; FORMAMIDE
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: GLYCERIN; FORMAMIDE
- Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL; FORMAMIDE

California Prop. 65

Section 15. Regulatory information

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

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.
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.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
End Prep Buffer AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method
End Prep Enzyme EYE IRRITATION - Category 2B	Calculation method
Ligation Enzyme EYE IRRITATION - Category 2B	Calculation method
Hyb Buffer ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method Calculation method Calculation method Calculation method
Hyb Enhancer CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B	Calculation method Calculation method

Section 16. Other information

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Calculation method

History

Date of issue/Date of revision : 04/11/2024

Date of previous issue : 02/23/2024

Version : 1.1

Key to abbreviations

: 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
 UN = United Nations

📌 Indicates information that has changed from previously issued version.

Notice to reader

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