

# SAFETY DATA SHEET



Avida DNA Reagent Kit with 1-96 Index Primer Pairs for ILM, 96 reactions, Part Number G9418A

## Section 1. Identification

### 1.1 Product identifier

<b>Product name</b>	: Avida DNA Reagent Kit with 1-96 Index Primer Pairs for ILM, 96 reactions, Part Number G9418A	
<b>Part no. (chemical kit)</b>	: G9418A	
<b>Part no.</b>	: <u>Avida DNA and Duo Reagent Box 2, 96 reactions</u>	5282-0142
	Nuclease-Free Water	5271-0134
	Library Wash Buffer	5271-0130
	Hyb Wash Buffer 1	5271-0131
	Hyb Wash Buffer 2	5271-0132
	Resuspension Buffer	5271-0133
	<u>Avida DNA Reagent Box 1, 96 Reactions</u>	5282-0140
	End Prep Buffer	5271-0121
	End Prep Enzyme	5271-0122
	Ligation Buffer	5271-0123
	Ligation Enzyme	5271-0124
	Adapter for ILM	5271-0139
	Hyb Blocker	5271-0126
	Hyb Buffer	5271-0127
	Hyb Enhancer	5271-0128
	2X Amplification Mastermix	5271-0129
	<u>Avida Beads Box, 96 Reactions</u>	5282-0144
	Library Binding Beads	5271-0135
	Capture Beads	5271-0136
	<u>Avida Index Primer Pairs 1 -96 for ILM</u>	5280-0055
	Avida Index Primer Pairs 1-96 for ILM	5274-0079

**Validation date** : 4/11/2024

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

<b>Identified uses</b>	: Analytical reagent. For research use only.	
	Nuclease-Free Water	5.76 ml (96 reactions)
	Library Wash Buffer	2 x 21.12 ml (96 reactions)
	Hyb Wash Buffer 1	2 x 31.68 ml (96 reactions)
	Hyb Wash Buffer 2	2 x 18.24 ml (96 reactions)
	Resuspension Buffer	2.364 ml (96 reactions)
	End Prep Buffer	0.877 ml (96 reactions)
	End Prep Enzyme	0.351 ml (96 reactions)
	Ligation Buffer	2.96 ml (96 reactions)
	Ligation Enzyme	0.695 ml (96 reactions)
	Adapter for ILM	0.588 ml (96 reactions)
	Hyb Blocker	0.349 ml (96 reactions)
	Hyb Buffer	5.524 ml (96 reactions)
	Hyb Enhancer	0.988 ml (96 reactions)
	2X Amplification Mastermix	2.94 ml (96 reactions)
	Library Binding Beads	10.083 ml (96 reactions)
	Capture Beads	0.944 ml (96 reactions)
	Avida Index Primer Pairs 1-96 for ILM	96 x 0.005 ml

**Uses advised against** : Not for use in diagnostic procedures.

### 1.3 Details of the supplier of the safety data sheet

## Section 1. Identification

**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

<b>OSHA/HCS status</b>	: 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.
Avida Index Primer Pairs 1-96 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 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  
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%

## Section 2. Hazards identification

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	No signal word.
Library Wash Buffer	No signal word.
Hyb Wash Buffer 1	No signal word.
Hyb Wash Buffer 2	No signal word.
Resuspension Buffer	No signal word.
End Prep Buffer	No signal word.
End Prep Enzyme	Warning
Ligation Buffer	No signal word.
Ligation Enzyme	Warning
Adapter for ILM	No signal word.
Hyb Blocker	No signal word.
Hyb Buffer	Danger
Hyb Enhancer	Danger
2X Amplification Mastermix	No signal word.
Library Binding Beads	No signal word.
Capture Beads	No signal word.
Avida Index Primer Pairs 1-96 for ILM	No signal word.

#### Hazard statements

: 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	H412 - Harmful to aquatic life with long lasting effects.
End Prep Enzyme	H320 - Causes eye irritation.
Ligation Buffer	No known significant effects or critical hazards.
Ligation Enzyme	H320 - Causes eye irritation.
Adapter for ILM	No known significant effects or critical hazards.
Hyb Blocker	No known significant effects or critical hazards.
Hyb Buffer	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.
Hyb Enhancer	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)
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.
Avida Index Primer Pairs 1-96 for	No known significant effects or critical hazards.

## Section 2. Hazards identification

ILM

### 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.
Avida Index Primer Pairs 1-96 for ILM	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 medical advice or attention.
2X Amplification Mastermix	Not applicable.
Library Binding Beads	Not applicable.
Capture Beads	Not applicable.

## Section 2. Hazards identification

	Avida Index Primer Pairs 1-96 for ILM	Not applicable.
<b>Storage</b>	: 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.
	Avida Index Primer Pairs 1-96 for ILM	Not applicable.
<b>Disposal</b>	: 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.
	Avida Index Primer Pairs 1-96 for ILM	Not applicable.
<b>Supplemental label elements</b>	: 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.

## Section 2. Hazards identification

Avida Index Primer Pairs 1-96 for ILM 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.  
 Avida Index Primer Pairs 1-96 for ILM None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	:	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
		Avida Index Primer Pairs 1-96 for ILM	Mixture

Ingredient name	%	CAS number
<b>Nuclease-Free Water</b>		
water	100	7732-18-5
<b>Hyb Wash Buffer 1</b>		
Sodium dodecyl sulphate	≤0.3	151-21-3
<b>Hyb Wash Buffer 2</b>		
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	<0.1	9036-19-5

## Section 3. Composition/information on ingredients

<b>End Prep Buffer</b>		
Magnesium chloride	<2.5	7786-30-3
<b>End Prep Enzyme</b>		
Glycerol	≥50 - ≤75	56-81-5
<b>Ligation Enzyme</b>		
Glycerol	≥50 - ≤75	56-81-5
<b>Hyb Buffer</b>		
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
<b>Hyb Enhancer</b>		
Formamide	≥90	75-12-7
<b>2X Amplification Mastermix</b>		
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

<b>Eye contact</b>	: 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. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Resuspension Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get



## Section 4. First aid measures

End Prep Buffer	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 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.
Avida Index Primer Pairs 1-96 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.

## Section 4. First aid measures

<b>Inhalation</b>	: Nuclease-Free Water	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	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 attention if symptoms occur.
	Hyb Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not

## Section 4. First aid measures

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.

Avida Index Primer Pairs 1-96 for ILM

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. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

End Prep Buffer

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

End Prep Enzyme

Flush contaminated skin with plenty of water.

## Section 4. First aid measures

		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.
	Avida Index Primer Pairs 1-96 for ILM	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: 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, 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.

## Section 4. First aid measures

Hyb Wash Buffer 2	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.
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 tight clothing such as a collar, tie, belt or waistband.
Adapter for ILM	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 Blocker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious,

## Section 4. First aid measures

Hyb Buffer	<p>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> <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>
Avida Index Primer Pairs 1-96 for ILM	<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>

### [4.2 Most important symptoms/effects, acute and delayed](#)

#### [Potential acute health effects](#)

## Section 4. First aid measures

<b>Eye contact</b>	<ul style="list-style-type: none"> <li>: Nuclease-Free Water</li> <li>Library Wash Buffer</li> <li>Hyb Wash Buffer 1</li> <li>Hyb Wash Buffer 2</li> <li>Resuspension Buffer</li> <li>End Prep Buffer</li> <li>End Prep Enzyme</li> <li>Ligation Buffer</li> <li>Ligation Enzyme</li> <li>Adapter for ILM</li> <li>Hyb Blocker</li> <li>Hyb Buffer</li> <li>Hyb Enhancer</li> <li>2X Amplification Mastermix</li> <li>Library Binding Beads</li> <li>Capture Beads</li> <li>Avida Index Primer Pairs 1-96 for ILM</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>Causes eye irritation.</li> <li>No known significant effects or critical hazards.</li> <li>Causes eye irritation.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>: Nuclease-Free Water</li> <li>Library Wash Buffer</li> <li>Hyb Wash Buffer 1</li> <li>Hyb Wash Buffer 2</li> <li>Resuspension Buffer</li> <li>End Prep Buffer</li> <li>End Prep Enzyme</li> <li>Ligation Buffer</li> <li>Ligation Enzyme</li> <li>Adapter for ILM</li> <li>Hyb Blocker</li> <li>Hyb Buffer</li> <li>Hyb Enhancer</li> <li>2X Amplification Mastermix</li> <li>Library Binding Beads</li> <li>Capture Beads</li> <li>Avida Index Primer Pairs 1-96 for ILM</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>Causes damage to organs following a single exposure if inhaled.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
<b>Skin contact</b>	<ul style="list-style-type: none"> <li>: Nuclease-Free Water</li> <li>Library Wash Buffer</li> <li>Hyb Wash Buffer 1</li> <li>Hyb Wash Buffer 2</li> <li>Resuspension Buffer</li> <li>End Prep Buffer</li> <li>End Prep Enzyme</li> <li>Ligation Buffer</li> <li>Ligation Enzyme</li> <li>Adapter for ILM</li> <li>Hyb Blocker</li> <li>Hyb Buffer</li> <li>Hyb Enhancer</li> <li>2X Amplification Mastermix</li> <li>Library Binding Beads</li> <li>Capture Beads</li> <li>Avida Index Primer Pairs 1-96 for ILM</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>Causes damage to organs following a single exposure in contact with skin. Causes skin irritation.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>

## Section 4. First aid measures

### 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.
Avida Index Primer Pairs 1-96 for ILM	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.
Avida Index Primer Pairs 1-96 for ILM	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.



## Section 4. First aid measures

	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.
	Avida Index Primer Pairs 1-96 for ILM	No specific data.
<b>Skin contact</b>	: 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.
	Avida Index Primer Pairs 1-96 for ILM	No specific data.
<b>Ingestion</b>	: 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.
	Avida Index Primer Pairs 1-96 for ILM	No specific data.

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

## Section 4. First aid measures

<b>Notes to physician</b>	: 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.
	Avida Index Primer Pairs 1-96 for ILM	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## Section 4. First aid measures

<b>Specific treatments</b>	: 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.	
Avida Index Primer Pairs 1-96 for ILM	No specific treatment.	
<b>Protection of first-aiders</b>	: 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	2X Amplification Mastermix	No action shall be taken involving any personal risk or without suitable training.
	Library Binding Beads	No action shall be taken involving any personal risk or without suitable training.

## Section 4. First aid measures

Capture Beads	No action shall be taken involving any personal risk or without suitable training.
Avida Index Primer Pairs 1-96 for ILM	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.
Avida Index Primer Pairs 1-96 for ILM	Use an extinguishing agent suitable for the surrounding fire.

#### 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.

## Section 5. Fire-fighting measures

Avida Index Primer Pairs 1-96 for ILM 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.
Capture Beads	In a fire or if heated, a pressure increase will occur and the container may burst.
Avida Index Primer Pairs 1-96 for ILM	In a fire or if heated, a pressure increase will occur and the container may burst.
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.

#### Hazardous thermal decomposition products

## Section 5. Fire-fighting measures

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: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
Capture Beads	No specific data.
Avida Index Primer Pairs 1-96 for ILM	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

## Section 5. Fire-fighting measures

Hyb Wash Buffer 1	without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
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 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.
Avida Index Primer Pairs 1-96 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

## Section 5. Fire-fighting measures

### Special protective equipment for fire-fighters

: Nuclease-Free Water	without suitable training. 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 (SCBA) with a full face-piece operated in positive pressure mode.
Hyb Blocker	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



## Section 5. Fire-fighting measures

Capture Beads

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.

Avida Index Primer Pairs 1-96 for ILM

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 touch or walk through spilled material. Put on appropriate personal protective equipment.

Resuspension 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 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

## Section 6. Accidental release measures

Ligation Enzyme	surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not 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. 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 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

## Section 6. Accidental release measures

	Avida Index Primer Pairs 1-96 for ILM	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.
<b>For emergency responders :</b>	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 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	End Prep 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".
	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

## Section 6. Accidental release measures

Library Binding Beads	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".
Avida Index Primer Pairs 1-96 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".

### 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, waterways, soil or air).
Hyb Wash Buffer 1	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.

## Section 6. Accidental release measures

Adapter for ILM	Inform the relevant authorities if the product has caused environmental pollution (sewers, 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 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).
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).
Avida Index Primer Pairs 1-96 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).

### 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.

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

## Section 6. Accidental release measures

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. 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.

## Section 6. Accidental release measures

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. 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.
Avida Index Primer Pairs 1-96 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.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	:	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

## Section 7. Handling and storage

Ligation Buffer	not reuse container. 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 (see Section 8).
Hyb Buffer	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).
Avida Index Primer Pairs 1-96 for ILM	Put on appropriate personal protective equipment (see Section 8).
: 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

**Advice on general occupational hygiene**



## Section 7. Handling and storage

Hyb Wash Buffer 1

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.

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 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.

Resuspension 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 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

## Section 7. Handling and storage

Hyb Buffer

processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

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.

Avida Index Primer Pairs 1-96 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.

### 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

## Section 7. Handling and storage

Hyb Wash Buffer 1	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. 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

## Section 7. Handling and storage

Ligation Buffer

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.

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

## Section 7. Handling and storage

Hyb Enhancer	<p>handling or use.</p> <p>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.</p>
2X Amplification Mastermix	<p>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.</p>
Library Binding Beads	<p>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.</p>
Capture Beads	<p>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.</p>
Avida Index Primer Pairs 1-96 for ILM	<p>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.</p>

### [7.3 Specific end use\(s\)](#)

## Section 7. Handling and storage

<b>Recommendations</b>	: 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 Avida Index Primer Pairs 1-96 for ILM	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: 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 Avida Index Primer Pairs 1-96 for ILM	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.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>Nuclease-Free Water</b> water	None.
<b>Hyb Wash Buffer 1</b> Sodium dodecyl sulphate	None.
<b>Hyb Wash Buffer 2</b> Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	None.
<b>End Prep Buffer</b> Magnesium chloride	None.
<b>End Prep Enzyme</b> Glycerol	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction

## Section 8. Exposure controls/personal protection

### Ligation Enzyme

Glycerol

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust  
**OSHA PEL (United States, 5/2018).**

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust  
**CAL OSHA PEL (United States, 5/2018).**

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: respirable fraction

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: total dust

**OSHA PEL 1989 (United States, 3/1989).**

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust  
**OSHA PEL (United States, 5/2018).**

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust  
**CAL OSHA PEL (United States, 5/2018).**

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: respirable fraction

TWA: 10 mg/m<sup>3</sup> 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<sup>3</sup> 8 hours.

STEL: 30 ppm 15 minutes.

STEL: 45 mg/m<sup>3</sup> 15 minutes.

**NIOSH REL (United States, 10/2020).**

**Absorbed through skin.**

TWA: 10 ppm 10 hours.

TWA: 15 mg/m<sup>3</sup> 10 hours.

**CAL OSHA PEL (United States, 5/2018).**

**Absorbed through skin.**

TWA: 18 mg/m<sup>3</sup> 8 hours.

TWA: 10 ppm 8 hours.

### 2X Amplification Mastermix

Glycerol

**OSHA PEL 1989 (United States, 3/1989).**

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust  
**OSHA PEL (United States, 5/2018).**

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust  
**CAL OSHA PEL (United States, 5/2018).**

## Section 8. Exposure controls/personal protection

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: respirable fraction  
TWA: 10 mg/m<sup>3</sup> 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



## Section 9. Physical and chemical properties and safety characteristics

<b>Physical state</b>	:	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.
	Avida Index Primer Pairs 1-96 for ILM	Liquid.	
<b>Color</b>	:	Nuclease-Free Water	Colorless.
		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.
	Avida Index Primer Pairs 1-96 for ILM	Not available.	
<b>Odor</b>	:	Nuclease-Free Water	Odorless.
		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.
	Avida Index Primer Pairs 1-96 for ILM	Not available.	

## Section 9. Physical and chemical properties and safety characteristics

<b>Odor threshold</b>	:	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.
	Avida Index Primer Pairs 1-96 for ILM	Not available.	
<b>pH</b>	:	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.
	Avida Index Primer Pairs 1-96 for ILM	8	
<b>Melting point/freezing point</b>	:	Nuclease-Free Water	0°C (32°F)
		Library Wash Buffer	Not available.
		Hyb Wash Buffer 1	Not available.
		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.
	Avida Index Primer Pairs 1-96 for ILM	0°C (32°F)	

## Section 9. Physical and chemical properties and safety characteristics

<b>Boiling point, initial boiling point, and boiling range</b>	Nuclease-Free Water	100°C (212°F)
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	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.
	Avida Index Primer Pairs 1-96 for ILM	100°C (212°F)

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

<b>Evaporation rate</b>	:	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.
		Avida Index Primer Pairs 1-96 for ILM	Not available.

## Section 9. Physical and chemical properties and safety characteristics

<b>Flammability</b>	:	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.
	Avida Index Primer Pairs 1-96 for ILM	Not applicable.	

<b>Lower and upper explosion limit/flammability limit</b>	:	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.
	Avida Index Primer Pairs 1-96 for ILM	Not available.	

<b>Vapor pressure</b>	:	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
<b>Library Wash Buffer</b>						
water	17.5	2.3	-	92.258	12.3	-
<b>Hyb Wash Buffer 1</b>						
water	17.5	2.3	-	92.258	12.3	-
<b>Hyb Wash Buffer 2</b>						
water	17.5	2.3	-	92.258	12.3	-
<b>Resuspension</b>						

**Section 9. Physical and chemical properties and safety characteristics**

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

## Section 9. Physical and chemical properties and safety characteristics

<b>Capture Beads</b>						
water	17.5	2.3	-	92.258	12.3	-
<b>Avida Index Primer Pairs 1-96 for ILM</b>						
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.
- Avida Index Primer Pairs 1-96 for ILM 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.
- Avida Index Primer Pairs 1-96 for ILM Not available.

**Solubility(ies)** :

Media	Result
<b>Nuclease-Free Water</b>	
water	Soluble
<b>Library Wash Buffer</b>	
water	Soluble
<b>Hyb Wash Buffer 1</b>	
water	Soluble
<b>Hyb Wash Buffer 2</b>	
water	Soluble
<b>Resuspension Buffer</b>	
water	Soluble
<b>End Prep Buffer</b>	

## Section 9. Physical and chemical properties and safety characteristics

water	Soluble
<b>End Prep Enzyme</b>	
water	Soluble
<b>Ligation Buffer</b>	
water	Soluble
<b>Ligation Enzyme</b>	
water	Soluble
<b>Adapter for ILM</b>	
water	Soluble
<b>Hyb Blocker</b>	
water	Soluble
<b>Hyb Buffer</b>	
water	Soluble
<b>Hyb Enhancer</b>	
water	Soluble
<b>Library Binding Beads</b>	
water	Soluble
<b>Capture Beads</b>	
water	Soluble
<b>Avida Index Primer Pairs 1-96 for ILM</b>	
water	Soluble

**Partition coefficient: n-octanol/water**

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.
Avida Index Primer Pairs 1-96 for ILM	Not applicable.

**Auto-ignition temperature**

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

## Section 9. Physical and chemical properties and safety characteristics

<b>Decomposition temperature</b>	:	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.
	Avida Index Primer Pairs 1-96 for ILM	Not available.	
<b>Viscosity</b>	:	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.
	Avida Index Primer Pairs 1-96 for ILM	Not available.	
<b>Particle characteristics</b>			
<b>Median particle size</b>			
:		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.
		Avida Index Primer Pairs 1-96 for ILM	Not applicable.



## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: 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.
	Avida Index Primer Pairs 1-96 for ILM	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: Nuclease-Free Water	The product is stable.
	Library Wash Buffer	The product is stable.
	Hyb Wash Buffer 1	The product is stable.
	Hyb Wash Buffer 2	The product is stable.
	Resuspension Buffer	The product is stable.
	End Prep Buffer	The product is stable.
	End Prep Enzyme	The product is stable.
	Ligation Buffer	The product is stable.
	Ligation Enzyme	The product is stable.
	Adapter for ILM	The product is stable.
	Hyb Blocker	The product is stable.
	Hyb Buffer	The product is stable.
	Hyb Enhancer	The product is stable.
	2X Amplification Mastermix	The product is stable.
	Library Binding Beads	The product is stable.
	Capture Beads	The product is stable.
	Avida Index Primer Pairs 1-96 for ILM	The product is stable.

## Section 10. Stability and reactivity

<b>10.3 Possibility of hazardous reactions</b>	:	Nuclease-Free Water	Under normal conditions of storage and use, hazardous reactions will not occur.
		Library Wash Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
		Hyb Wash Buffer 1	Under normal conditions of storage and use, hazardous reactions will not occur.
		Hyb Wash Buffer 2	Under normal conditions of storage and use, hazardous reactions will not occur.
		Resuspension Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
		End Prep Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
		End Prep Enzyme	Under normal conditions of storage and use, hazardous reactions will not occur.
		Ligation Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
		Ligation Enzyme	Under normal conditions of storage and use, hazardous reactions will not occur.
		Adapter for ILM	Under normal conditions of storage and use, hazardous reactions will not occur.
		Hyb Blocker	Under normal conditions of storage and use, hazardous reactions will not occur.
		Hyb Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
		Hyb Enhancer	Under normal conditions of storage and use, hazardous reactions will not occur.
		2X Amplification Mastermix	Under normal conditions of storage and use, hazardous reactions will not occur.
		Library Binding Beads	Under normal conditions of storage and use, hazardous reactions will not occur.
		Capture Beads	Under normal conditions of storage and use, hazardous reactions will not occur.
	Avida Index Primer Pairs 1-96 for ILM	Under normal conditions of storage and use, hazardous reactions will not occur.	
<b>10.4 Conditions to avoid</b>	:	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	No specific data.
		2X Amplification Mastermix	No specific data.
		Library Binding Beads	No specific data.
		Capture Beads	No specific data.
	Avida Index Primer Pairs 1-96 for ILM	No specific data.	

## Section 10. Stability and reactivity

<b>10.5 Incompatible materials</b>	:	Nuclease-Free Water	May react or be incompatible with oxidizing materials.
		Library Wash Buffer	May react or be incompatible with oxidizing materials.
		Hyb Wash Buffer 1	May react or be incompatible with oxidizing materials.
		Hyb Wash Buffer 2	May react or be incompatible with oxidizing materials.
		Resuspension Buffer	May react or be incompatible with oxidizing materials.
		End Prep Buffer	May react or be incompatible with oxidizing materials.
		End Prep Enzyme	May react or be incompatible with oxidizing materials.
		Ligation Buffer	May react or be incompatible with oxidizing materials.
		Ligation Enzyme	May react or be incompatible with oxidizing materials.
		Adapter for ILM	May react or be incompatible with oxidizing materials.
		Hyb Blocker	May react or be incompatible with oxidizing materials.
		Hyb Buffer	May react or be incompatible with oxidizing materials.
		Hyb Enhancer	May react or be incompatible with oxidizing materials.
		2X Amplification Mastermix	May react or be incompatible with oxidizing materials.
		Library Binding Beads	May react or be incompatible with oxidizing materials.
		Capture Beads	May react or be incompatible with oxidizing materials.
		Avida Index Primer Pairs 1-96 for ILM	May react or be incompatible with oxidizing materials.
<b>10.6 Hazardous decomposition products</b>	:	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,

## Section 10. Stability and reactivity

Adapter for ILM	hazardous decomposition products should not be produced. 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.
Avida Index Primer Pairs 1-96 for ILM	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>Hyb Wash Buffer 1</b> Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-
<b>Hyb Wash Buffer 2</b> Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-
<b>End Prep Buffer</b> Magnesium chloride	LD50 Dermal LD50 Oral	Rat - Male, Female Rat	>2000 mg/kg 2800 mg/kg	- -
<b>End Prep Enzyme</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-
<b>Ligation Enzyme</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-
<b>Hyb Buffer</b> tetramethylammonium chloride	LD50 Dermal LD50 Oral	Rabbit - Male, Female Rat	200 to 500 mg/kg 50 mg/kg	- -
Dextran sulfate sodium Poly(oxy-1,2-ethanediyl), . alpha.-[	LD50 Oral LD50 Oral LD50 Oral	Rat Rat Rat	20600 mg/kg 2800 mg/kg	- -

## Section 11. Toxicological information

(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-				
<b>Hyb Enhancer</b> 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 - -
<b>2X Amplification Mastermix</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>Hyb Wash Buffer 1</b> 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	-
<b>Hyb Wash Buffer 2</b> Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-
<b>End Prep Enzyme</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
<b>Ligation Enzyme</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
<b>Hyb Buffer</b> Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-
<b>2X Amplification Mastermix</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

### Sensitization

Not available.

## Section 11. Toxicological information

### 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
<b>Hyb Wash Buffer 1</b> Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation
<b>Hyb Buffer</b> tetramethylammonium chloride	Category 1	oral	central nervous system (CNS)
Dextran sulfate sodium	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
<b>Hyb Enhancer</b> 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.
Avida Index Primer Pairs 1-96 for ILM	Not available.

### Potential acute health effects

## Section 11. Toxicological information

<b>Eye contact</b>	<ul style="list-style-type: none"> <li>: Nuclease-Free Water</li> <li>Library Wash Buffer</li> <li>Hyb Wash Buffer 1</li> <li>Hyb Wash Buffer 2</li> <li>Resuspension Buffer</li> <li>End Prep Buffer</li> <li>End Prep Enzyme</li> <li>Ligation Buffer</li> <li>Ligation Enzyme</li> <li>Adapter for ILM</li> <li>Hyb Blocker</li> <li>Hyb Buffer</li> <li>Hyb Enhancer</li> <li>2X Amplification Mastermix</li> <li>Library Binding Beads</li> <li>Capture Beads</li> <li>Avida Index Primer Pairs 1-96 for ILM</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>Causes eye irritation.</li> <li>No known significant effects or critical hazards.</li> <li>Causes eye irritation.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>: Nuclease-Free Water</li> <li>Library Wash Buffer</li> <li>Hyb Wash Buffer 1</li> <li>Hyb Wash Buffer 2</li> <li>Resuspension Buffer</li> <li>End Prep Buffer</li> <li>End Prep Enzyme</li> <li>Ligation Buffer</li> <li>Ligation Enzyme</li> <li>Adapter for ILM</li> <li>Hyb Blocker</li> <li>Hyb Buffer</li>   <li>Hyb Enhancer</li> <li>2X Amplification Mastermix</li> <li>Library Binding Beads</li> <li>Capture Beads</li> <li>Avida Index Primer Pairs 1-96 for ILM</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>Causes damage to organs following a single exposure if inhaled.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
<b>Skin contact</b>	<ul style="list-style-type: none"> <li>: Nuclease-Free Water</li> <li>Library Wash Buffer</li> <li>Hyb Wash Buffer 1</li> <li>Hyb Wash Buffer 2</li> <li>Resuspension Buffer</li> <li>End Prep Buffer</li> <li>End Prep Enzyme</li> <li>Ligation Buffer</li> <li>Ligation Enzyme</li> <li>Adapter for ILM</li> <li>Hyb Blocker</li> <li>Hyb Buffer</li>   <li>Hyb Enhancer</li> <li>2X Amplification Mastermix</li> <li>Library Binding Beads</li> <li>Capture Beads</li> <li>Avida Index Primer Pairs 1-96 for ILM</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>Causes damage to organs following a single exposure in contact with skin. Causes skin irritation.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>

## Section 11. Toxicological information

<b>Ingestion</b>	: 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 Avida Index Primer Pairs 1-96 for ILM	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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Harmful if swallowed. Causes damage to organs following a single exposure if swallowed. 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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### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: 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 Avida Index Primer Pairs 1-96 for ILM	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness No specific data. Adverse symptoms may include the following: irritation watering redness No specific data. No specific data. Adverse symptoms may include the following: pain or irritation watering redness No specific data. No specific data. No specific data. No specific data. No specific data.
<b>Inhalation</b>	: 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	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.



## Section 11. Toxicological information

	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.
	Avida Index Primer Pairs 1-96 for ILM	No specific data.
<b>Skin contact</b>	: 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.
	Avida Index Primer Pairs 1-96 for ILM	No specific data.
<b>Ingestion</b>	: 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.
	Avida Index Primer Pairs 1-96 for ILM	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.

## Section 11. Toxicological information

### 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.
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.
Avida Index Primer Pairs 1-96 for ILM	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.
Avida Index Primer Pairs 1-96 for ILM	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.

## Section 11. Toxicological information

	Avida Index Primer Pairs 1-96 for ILM	No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: 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.	
Capture Beads	No known significant effects or critical hazards.	
Avida Index Primer Pairs 1-96 for ILM	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)
<b>Library Wash Buffer</b> Library Wash Buffer	37635.4	N/A	N/A	N/A	N/A
<b>Hyb Wash Buffer 1</b> 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
<b>Hyb Wash Buffer 2</b> Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	500	N/A	N/A	N/A	N/A
<b>End Prep Buffer</b> End Prep Buffer Magnesium chloride	229323.3 2800	204752.9 2500	N/A N/A	N/A N/A	N/A N/A
<b>End Prep Enzyme</b> Glycerol	12600	N/A	N/A	N/A	N/A
<b>Ligation Enzyme</b> Glycerol	12600	N/A	N/A	N/A	N/A
<b>Hyb Buffer</b> 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
<b>Hyb Enhancer</b> Formamide	5570	17000	N/A	N/A	N/A

## Section 11. Toxicological information

<b>2X Amplification Mastermix</b> Glycerol	12600	N/A	N/A	N/A	N/A
<b>Library Binding Beads</b> Library Binding Beads	17855.8	N/A	N/A	N/A	N/A

<b>Other information</b>	: 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
<b>Hyb Wash Buffer 1</b> 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
<b>Hyb Wash Buffer 2</b> 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
<b>End Prep Buffer</b> 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
	Acute LC50 2120 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
<b>End Prep Enzyme</b> Glycerol	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

## Section 12. Ecological information

<b>Ligation Enzyme</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
<b>Hyb Buffer</b> tetramethylammonium chloride	Acute LC50 462 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	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
<b>Hyb Enhancer</b> Formamide	Acute EC50 >500 mg/l Fresh water	Algae	72 hours
	Acute EC50 >500 mg/l Fresh water	Daphnia	48 hours
	Acute LC50 6569 mg/l Fresh water	Fish	96 hours
	Acute NOEC 4640 mg/l Fresh water	Algae	72 hours
	Acute NOEC 4640 mg/l Fresh water	Fish	96 hours
<b>2X Amplification Mastermix</b> 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
<b>Hyb Wash Buffer 1</b> Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO <sub>2</sub> Evolution Test	95 % - Readily - 28 days	20 mg/l	-
<b>End Prep Enzyme</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
<b>Ligation Enzyme</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
<b>Hyb Enhancer</b> Formamide	OECD 301A Ready Biodegradability - DOC Die-Away Test	99 % - Readily - 28 days	-	-
<b>2X Amplification Mastermix</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

## Section 12. Ecological information

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

### 12.3 Bioaccumulative potential

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

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : 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.

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

## Section 15. Regulatory information

**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)
<b>Capture Beads</b> Sodium azide	<0.1	Yes.	500	-	1000	-

**SARA 304 RQ** : 68000000 lbs / 30872000 kg

### SARA 311/312

Classification		
	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	EYE IRRITATION - Category 2B
	Ligation Buffer	Not applicable.
	Ligation Enzyme	EYE IRRITATION - Category 2B
	Adapter for ILM	Not applicable.
	Hyb Blocker	Not applicable.
	Hyb Buffer	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
	Hyb Enhancer	CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
	2X Amplification Mastermix	Not applicable.
	Library Binding Beads	Not applicable.
	Capture Beads	Not applicable.
	Avida Index Primer Pairs 1-96 for ILM	Not applicable.

#### Composition/information on ingredients

Name	%	Classification
<b>End Prep Enzyme</b> Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
<b>Ligation Enzyme</b> Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
<b>Hyb Buffer</b> 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
<b>Hyb Enhancer</b> Formamide	≥90	CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
<b>2X Amplification Mastermix</b> Glycerol	<10	EYE IRRITATION - Category 2B

### SARA 313



## Section 15. Regulatory information

	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**

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
<b>End Prep Buffer</b> AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method
<b>End Prep Enzyme</b> EYE IRRITATION - Category 2B	Calculation method
<b>Ligation Enzyme</b> EYE IRRITATION - Category 2B	Calculation method
<b>Hyb Buffer</b> 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
<b>Hyb Enhancer</b> CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method Calculation method Calculation method

### History

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### 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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