

# SAFETY DATA SHEET

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

## Section 1. Identification

<b>Product identifier</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>	: <input checked="" type="checkbox"/> <u>Avida DNA and Duo Reagent Box 2, 96 reactions</u>	<u>5282-0142</u>
	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>	<u>5282-0140</u>
	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>	<u>5282-0144</u>
	Library Binding Beads	5271-0135
	Capture Beads	5271-0136
	<u>Avida Index Primer Pairs 1 -96 for ILM</u>	<u>5280-0055</u>
	Avida Index Primer Pairs 1-96 for ILM	5274-0079

### 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
<b>Uses advised against</b>	: Not for use in diagnostic procedures.	

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

## Section 1. Identification

**Emergency telephone number (with hours of operation)** : CHEMTREC®: 1-800-424-9300

## Section 2. Hazard identification

### Classification of the substance or mixture

<b>End Prep Buffer</b> H412	AQUATIC HAZARD (LONG-TERM) - Category 3
<b>End Prep Enzyme</b> H320	EYE IRRITATION - Category 2B
<b>Ligation Enzyme</b> H320	EYE IRRITATION - Category 2B
<b>Hyb Buffer</b> H302 H315 H370 H412	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3
<b>Hyb Enhancer</b> H351 H360 H373	CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 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.

## Section 2. Hazard identification

<b>Hazard statements</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 known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. H412 - Harmful to aquatic life with long lasting effects. H320 - Causes eye irritation. No known significant effects or critical hazards. H320 - Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. H302 - Harmful if swallowed. H315 - Causes skin irritation. H370 - Causes damage to organs. (central nervous system (CNS)) H412 - Harmful to aquatic life with long lasting effects. H351 - Suspected of causing cancer. H360 - May damage fertility or the unborn child. H373 - May cause damage to organs through prolonged or repeated exposure. (blood)
	Hyb Enhancer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. 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.
	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.

### Precautionary statements

#### **Prevention**

: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P273 - Avoid release to the environment. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. 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 Library Binding Beads Capture Beads Avida Index Primer Pairs 1-96 for ILM	Not applicable. Not applicable. Not applicable. Not applicable.	
<b>Response</b>	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P305 + P351 + P338 - IF IN EYES: Rinse cautiously

## Section 2. Hazard identification

	Ligation Buffer	with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Ligation Enzyme	P337 + P313 - If eye irritation persists: Get medical advice or attention. Not applicable.
	Adapter for ILM	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Hyb Blocker	P337 + P313 - If eye irritation persists: Get medical advice or attention.
	Hyb Buffer	Not applicable. P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor.
	Hyb Enhancer	P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water.
	2X Amplification Mastermix	P308 + P313 - IF exposed or concerned: Get medical advice or attention.
	Library Binding Beads	Not applicable.
	Capture Beads	Not applicable.
	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

## Section 2. Hazard identification

		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.
	Avida Index Primer Pairs 1-96 for ILM	None known.
	Hyb Buffer	Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%
	Hyb Buffer	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 3.4%
<b>Other hazards which do not result in classification</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.
	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

## Section 3. Composition/information on ingredients

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	Synonyms	% (w/w)	CAS number
<b>Nuclease-Free Water</b>			
water	Water	100	7732-18-5
<b>Hyb Wash Buffer 1</b>			
Sodium dodecyl sulphate	Sodium dodecyl sulphate	≥0.1 - ≤1	151-21-3
<b>Hyb Wash Buffer 2</b>			
Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]- omega.-hydroxy-	Polyethylene glycol octaphenyl ether	≤0.1	9036-19-5
<b>End Prep Buffer</b>			
Magnesium chloride	Magnesium chloride	≥1 - ≤5	7786-30-3
<b>End Prep Enzyme</b>			
Glycerol	Glycerol	≥30 - ≤60	56-81-5
<b>Ligation Enzyme</b>			
Glycerol	Glycerol	≥30 - ≤60	56-81-5
<b>Hyb Buffer</b>			
tetramethylammonium chloride	tetramethylammonium chloride	≥10 - ≤30	75-57-0
Dextran sulfate sodium	Dextran Sulfate	≥1 - ≤5	9011-18-1
Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]- omega.-hydroxy-	Polyethylene glycol octaphenyl ether	≤0.1	9036-19-5
<b>Hyb Enhancer</b>			
Formamide	Formamide	≥80	75-12-7
<b>2X Amplification Mastermix</b>			
Glycerol	Glycerol	≥5 - ≤10	56-81-5

## Section 3. Composition/information on ingredients

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

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

### 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 medical attention if irritation occurs.
	End Prep Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	End Prep Enzyme	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	Ligation Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Ligation Enzyme	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	Adapter for ILM	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Hyb Blocker	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Hyb Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue

## Section 4. First-aid measures

		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.
<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.



## Section 4. First-aid measures

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 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.

## Section 4. First-aid measures

<b>Skin contact</b>	: 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. 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.

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<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.
	Hyb Wash Buffer 2	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Resuspension Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	End Prep Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.
	End Prep Enzyme	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Ligation Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Ligation Enzyme	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get

## Section 4. First-aid measures

	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, 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 Buffer	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. 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.
Hyb Enhancer	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.
2X Amplification Mastermix	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 Binding Beads	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.
Capture Beads	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.
Avida Index Primer Pairs 1-96 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.

## Section 4. First-aid measures

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<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 known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. No known significant effects or critical hazards. Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<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  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. Causes damage to organs following a single exposure if inhaled. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin 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	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

## Section 4. First-aid measures

	1-96 for ILM	
<b>Ingestion</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	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	No known significant effects or critical hazards.
	1-96 for ILM	
<b><u>Over-exposure signs/symptoms</u></b>		
<b>Eye 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	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	No specific data.
	1-96 for ILM	
<b>Inhalation</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.

## Section 4. First-aid measures

	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.
<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.

### 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

### Extinguishing media

<b>Suitable extinguishing media</b>	: 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.

<b>Unsuitable extinguishing media</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 5. Fire-fighting measures

	Avida Index Primer Pairs 1-96 for ILM	None known.
<b>Specific hazards arising from the chemical</b>	: 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.
	<b>Hazardous thermal decomposition products</b>	Library Binding Beads
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.
End Prep Buffer		Decomposition products may include the following materials:

## Section 5. Fire-fighting measures

		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.
<b>Special protective actions for fire-fighters</b>	: Nuclease-Free Water	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Library Wash Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Hyb Wash Buffer 1	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or

## Section 5. Fire-fighting measures

Hyb Wash Buffer 2	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.
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 without suitable training.

## Section 5. Fire-fighting measures

<b>Special protective equipment for fire-fighters</b>	: Nuclease-Free Water	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Library Wash Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Hyb Wash Buffer 1	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Hyb Wash Buffer 2	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Resuspension Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	End Prep Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	End Prep Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Ligation Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Ligation Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Adapter for ILM	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (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 pressure mode.

## Section 5. Fire-fighting measures

Capture Beads	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
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

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: 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 surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal

## Section 6. Accidental release measures

Ligation Enzyme	<p>protective equipment.</p> <p>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.</p>
Adapter for ILM	<p>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.</p>
Hyb Blocker	<p>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.</p>
Hyb Buffer	<p>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.</p>
Hyb Enhancer	<p>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.</p>
2X Amplification Mastermix	<p>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.</p>
Library Binding Beads	<p>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.</p>
Capture Beads	<p>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.</p>
Avida Index Primer Pairs 1-96 for ILM	<p>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</p>



## Section 6. Accidental release measures

**For emergency responders** : 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

protective equipment.

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".

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".

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".

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".

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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

## Section 6. Accidental release measures

Capture Beads	information in "For non-emergency personnel". If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
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".
<b>Environmental precautions</b> : 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. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Adapter for ILM	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways,

## Section 6. Accidental release measures

	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).

### Methods and materials for containment and cleaning up

**Methods for cleaning up** : Nuclease-Free Water

	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 Wash Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Hyb Wash Buffer 1	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Hyb Wash Buffer 2	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.

## Section 6. Accidental release measures

	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.
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.

## Section 6. Accidental release measures

Library Binding Beads	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.
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

### Precautions for safe handling

#### Protective measures

: Nuclease-Free Water	Put on appropriate personal protective equipment (see Section 8).
Library Wash Buffer	Put on appropriate personal protective equipment (see Section 8).
Hyb Wash Buffer 1	Put on appropriate personal protective equipment (see Section 8).
Hyb Wash Buffer 2	Put on appropriate personal protective equipment (see Section 8).
Resuspension Buffer	Put on appropriate personal protective equipment (see Section 8).
End Prep Buffer	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
End Prep Enzyme	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Ligation Buffer	Put on appropriate personal protective equipment (see Section 8).
Ligation Enzyme	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers

## Section 7. Handling and storage

		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).
<b>Advice on general occupational hygiene</b>	: Nuclease-Free Water	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Library Wash Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Hyb Wash Buffer 1	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Hyb Wash Buffer 2	Eating, drinking and smoking should be prohibited in

## Section 7. Handling and storage

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

## Section 7. Handling and storage

Hyb Enhancer	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.
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.

**Conditions for safe storage, including any incompatibilities** : Nuclease-Free Water

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

Library Wash Buffer

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been 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.



## Section 7. Handling and storage

Hyb Wash Buffer 1	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Hyb Wash Buffer 2	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Resuspension Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
End Prep Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
End Prep Enzyme	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Ligation Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until

## Section 7. Handling and storage

Ligation Enzyme

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.

Adapter for ILM

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

Hyb Blocker

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

Hyb Buffer

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

Hyb Enhancer

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food 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

## Section 7. Handling and storage

2X Amplification Mastermix	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.
Library Binding Beads	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Capture Beads	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Avida Index Primer Pairs 1-96 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.

## Section 8. Exposure controls/personal protection

[Control parameters](#)

[Occupational exposure limits](#)

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
<p><b>End Prep Enzyme</b> Glycerol</p>	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> OEL: 10 mg/m<sup>3</sup> 8 hours. Form: Mist  <b>CA Quebec Provincial (Canada, 6/2022).</b> TWAEV: 10 mg/m<sup>3</sup> 8 hours. Form: mist  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 20 mg/m<sup>3</sup> 15 minutes. Form: mist TWA: 10 mg/m<sup>3</sup> 8 hours. Form: mist  <b>CA British Columbia Provincial (Canada, 6/2023).</b> TWA: 3 mg/m<sup>3</sup> 8 hours. Form: respirable mist TWA: 10 mg/m<sup>3</sup> 8 hours. Form: total mist</p>
<p><b>Ligation Enzyme</b> Glycerol</p>	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> OEL: 10 mg/m<sup>3</sup> 8 hours. Form: Mist  <b>CA Quebec Provincial (Canada, 6/2022).</b> TWAEV: 10 mg/m<sup>3</sup> 8 hours. Form: mist  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b> STEL: 20 mg/m<sup>3</sup> 15 minutes. Form: mist TWA: 10 mg/m<sup>3</sup> 8 hours. Form: mist  <b>CA British Columbia Provincial (Canada, 6/2023).</b> TWA: 3 mg/m<sup>3</sup> 8 hours. Form: respirable mist TWA: 10 mg/m<sup>3</sup> 8 hours. Form: total mist</p>
<p><b>Hyb Enhancer</b> Formamide</p>	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> <b>Absorbed through skin.</b> OEL: 10 ppm 8 hours. OEL: 18 mg/m<sup>3</sup> 8 hours.  <b>CA British Columbia Provincial (Canada, 6/2023).</b> <b>Absorbed through skin.</b> TWA: 10 ppm 8 hours.  <b>CA Ontario Provincial (Canada, 6/2019).</b> <b>Absorbed through skin.</b> TWA: 10 ppm 8 hours.  <b>CA Quebec Provincial (Canada, 6/2022).</b> <b>Absorbed through skin.</b> TWAEV: 10 ppm 8 hours. TWAEV: 18 mg/m<sup>3</sup> 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b> <b>Absorbed through skin.</b> STEL: 15 ppm 15 minutes. TWA: 10 ppm 8 hours.</p>
<p><b>2X Amplification Mastermix</b> Glycerol</p>	<p><b>CA Alberta Provincial (Canada, 6/2018).</b> OEL: 10 mg/m<sup>3</sup> 8 hours. Form: Mist  <b>CA Quebec Provincial (Canada, 6/2022).</b> TWAEV: 10 mg/m<sup>3</sup> 8 hours. Form: mist  <b>CA Saskatchewan Provincial (Canada,</b></p>

## Section 8. Exposure controls/personal protection

7/2013).

STEL: 20 mg/m<sup>3</sup> 15 minutes. Form: mistTWA: 10 mg/m<sup>3</sup> 8 hours. Form: mist
**CA British Columbia Provincial (Canada, 6/2023).**
TWA: 3 mg/m<sup>3</sup> 8 hours. Form: respirable mistTWA: 10 mg/m<sup>3</sup> 8 hours. Form: total mist

### Biological exposure indices

No exposure indices known.

- 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

<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)	

### Flash point

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
<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	-

### Evaporation rate

<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.	



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

	Avida Index Primer Pairs 1-96 for ILM	Not available.
<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)]
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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</b>						

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

<b>2</b>							
water	17.5	2.3	-		92.258	12.3	-
<b>Resuspension 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	0.0000000013	EU A.4		-	-	-
<b>Hyb Enhancer</b>							
Formamide	0.045	0.006	-		-	-	-
<b>2X Amplification Mastermix</b>							

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

Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
<b>Library Binding Beads</b>						
water	17.5	2.3	-	92.258	12.3	-
<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.

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

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> 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 :

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

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	-

**Decomposition temperature** :

Nuclease-Free Water	Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Resuspension Buffer	Not available.
End Prep Buffer	Not available.
End Prep Enzyme	Not available.
Ligation Buffer	Not available.
Ligation Enzyme	Not available.
Adapter for ILM	Not available.
Hyb Blocker	Not available.
Hyb Buffer	Not available.
Hyb Enhancer	Not available.
2X Amplification Mastermix	Not available.
Library Binding Beads	Not available.
Capture Beads	Not available.
Avida Index Primer Pairs 1-96 for ILM	Not available.

**Viscosity** :

Nuclease-Free Water	Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Resuspension Buffer	Not available.
End Prep Buffer	Not available.
End Prep Enzyme	Not available.
Ligation Buffer	Not available.
Ligation Enzyme	Not available.
Adapter for ILM	Not available.
Hyb Blocker	Not available.
Hyb Buffer	Not available.
Hyb Enhancer	Not available.
2X Amplification Mastermix	Not available.
Library Binding Beads	Not available.
Capture Beads	Not available.
Avida Index Primer Pairs 1-96 for ILM	Not available.

### Particle characteristics

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

<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>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.

## Section 10. Stability and reactivity

<b>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.
<b>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.

## Section 10. Stability and reactivity

<b>Conditions to avoid</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 specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> </ul>
<b>Incompatible materials</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>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> <li>May react or be incompatible with oxidizing materials.</li> </ul>
<b>Hazardous decomposition products</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> </ul>	<ul style="list-style-type: none"> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> <li>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</li> </ul>



## Section 10. Stability and reactivity

Ligation Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Ligation Enzyme	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Adapter for ILM	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hyb Blocker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hyb Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hyb Enhancer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
2X Amplification Mastermix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Library Binding Beads	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Capture Beads	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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

### [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	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat	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	Rabbit - Male, Female	200 to 500 mg/ kg	-

## Section 11. Toxicological information

Dextran sulfate sodium	LD50 Oral	Rat	50 mg/kg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	20600 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-
<b>Hyb Enhancer</b>				
Formamide	LC50 Inhalation Dusts and mists	Rat - Male	>21 mg/l	4 hours
	LD50 Dermal	Rabbit	17 g/kg	-
	LD50 Oral	Rat	5570 mg/kg	-
<b>2X Amplification</b>				
<b>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	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	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</b>					
<b>Mastermix</b>					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-

## Section 11. Toxicological information

	Skin - Mild irritant	Rabbit	-	mg 24 hours 500 mg	-
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### Sensitization

Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Classification

Product/ingredient name	IARC	NTP	ACGIH
<b>Hyb Enhancer</b> Formamide	-	-	A3

### 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,

## Section 11. Toxicological information

Hyb Blocker	Eyes.
Hyb Buffer	Not available.
	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

#### Eye contact

: Nuclease-Free Water	No known significant effects or critical hazards.
Library Wash Buffer	No known significant effects or critical hazards.
Hyb Wash Buffer 1	No known significant effects or critical hazards.
Hyb Wash Buffer 2	No known significant effects or critical hazards.
Resuspension Buffer	No known significant effects or critical hazards.
End Prep Buffer	No known significant effects or critical hazards.
End Prep Enzyme	Causes eye irritation.
Ligation Buffer	No known significant effects or critical hazards.
Ligation Enzyme	Causes eye irritation.
Adapter for ILM	No known significant effects or critical hazards.
Hyb Blocker	No known significant effects or critical hazards.
Hyb Buffer	No known significant effects or critical hazards.
Hyb Enhancer	No known significant effects or critical hazards.
2X Amplification Mastermix	No known significant effects or critical hazards.
Library Binding Beads	No known significant effects or critical hazards.
Capture Beads	No known significant effects or critical hazards.
Avida Index Primer Pairs 1-96 for ILM	No known significant effects or critical hazards.

#### Inhalation

: 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	Causes damage to organs following a single exposure if inhaled.
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.

#### Skin contact

: Nuclease-Free Water	No known significant effects or critical hazards.
Library Wash Buffer	No known significant effects or critical hazards.
Hyb Wash Buffer 1	No known significant effects or critical hazards.
Hyb Wash Buffer 2	No known significant effects or critical hazards.
Resuspension Buffer	No known significant effects or critical hazards.
End Prep Buffer	No known significant effects or critical hazards.
End Prep Enzyme	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.

## Section 11. Toxicological information

	Hyb Blocker	No known significant effects or critical hazards.
	Hyb Buffer	Causes damage to organs following a single exposure in contact with skin. Causes skin irritation.
	Hyb Enhancer	No known significant effects or critical hazards.
	2X Amplification Mastermix	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Avida Index Primer Pairs 1-96 for ILM	No known significant effects or critical hazards.
<b>Ingestion</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	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.

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

<b>Eye 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	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.

## Section 11. Toxicological information

<b>Inhalation</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.	
<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

## Section 11. Toxicological information

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.

#### 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.

## Section 11. Toxicological information

<b>Mutagenicity</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. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Reproductive toxicity</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. May damage fertility or the unborn child. 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.

### 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



## Section 11. Toxicological information

<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	450.2	2737.2	N/A	N/A	N/A
tetramethylammonium chloride	50	300	N/A	N/A	N/A
Dextran sulfate sodium	20600	N/A	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	500	N/A	N/A	N/A	N/A
<b>Hyb Enhancer</b> Formamide	5570	17000	N/A	N/A	N/A
<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

### Other information

: End Prep Buffer

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

Adapter for ILM

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

Hyb Enhancer

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

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
<b>Hyb Wash Buffer 1</b> Sodium dodecyl sulphate	Acute EC50 1200 µg/l Marine water Acute LC50 900 µg/l Marine water	Algae - <i>Skeletonema costatum</i> Crustaceans - <i>Artemia salina</i> - Adult	96 hours 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
	Chronic NOEC 0.8 mg/l Fresh water	Fish - <i>Gambusia holbrooki</i>	28 days
<b>Hyb Wash Buffer 2</b> Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Acute EC50 210 µg/l Fresh water	Algae - <i>Selenastrum</i> sp.	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

## Section 12. Ecological information

<b>End Prep Buffer</b> Magnesium chloride	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
	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
<b>End Prep Enzyme</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
<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 Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Acute LC50 462 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	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

### 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>				

## Section 12. Ecological information

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	-	-

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

### 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.-[	2.7	78.67	Low

## Section 12. Ecological information

(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-			
<b>Hyb Enhancer</b> Formamide	-0.82	-	Low
<b>2X Amplification Mastermix</b> Glycerol	-1.76	-	Low

### Mobility in soil

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

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

## Section 13. Disposal considerations

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

## Section 14. Transport information

**TDG / 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

### Canadian lists

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

### 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.

## Section 15. Regulatory information

### [Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

### [UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

### [Inventory list](#)

**Canada** : Not determined.

**United States** : Not determined.

## Section 16. Other information

### [History](#)

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

**Date of previous issue** : 02/23/2024

**Version** : 1.1

**Key to abbreviations** :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- HPR = Hazardous Products Regulations
- 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

### [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 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method Calculation method Calculation method

📌 Indicates information that has changed from previously issued version.

### [Notice to reader](#)

## Section 16. Other information

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