

SAFETY DATA SHEET



Avida DNA Reagent Kit with 97-192 Index Primer Pairs for ILM, 96 Reactions, Part Number G9418B

Section 1. Identification

Product identifier	: Avida DNA Reagent Kit with 97-192 Index Primer Pairs for ILM, 96 Reactions, Part Number G9418B
Part no. (chemical kit)	: G9418B
Part no.	: <u>Avida DNA and Duo Reagent Box 2, 96 Reactions</u> 5282-0142
	Nuclease-Free Water 5271-0134
	Library Wash Buffer 5271-0130
	Hyb Wash Buffer 1 5271-0131
	Hyb Wash Buffer 2 5271-0132
	Resuspension Buffer 5271-0133
	<u>Avida DNA Reagent Box 1, 96 Reactions</u> 5282-0140
	End Prep Buffer 5271-0121
	End Prep Enzyme 5271-0122
	Ligation Buffer 5271-0123
	Ligation Enzyme 5271-0124
	Adapter for ILM 5271-0139
	Hyb Blocker 5271-0126
	Hyb Buffer 5271-0127
	Hyb Enhancer 5271-0128
	2X Amplification Mastermix 5271-0129
	<u>Avida Beads Box, 96 Reactions</u> 5282-0144
	Library Binding Beads 5271-0135
	Capture Beads 5271-0136
	<u>Avida Index Primer Pairs 97 -192 for ILM</u> 5280-0056
	Avida Index Primer Pairs 97-192 for ILM 5274-0080

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

Identified uses	: 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 97-192 for ILM 96 x 0.005 ml

Uses advised against : Not for use in diagnostic procedures.

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

Section 1. Identification

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

Section 2. Hazard(s) identification

Classification of the substance or mixture

End Prep Buffer

H412 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

End Prep Enzyme

H320 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

Ligation Enzyme

H320 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

Hyb Buffer

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

Hyb Enhancer

H351 CARCINOGENICITY - Category 2
 H360 REPRODUCTIVE TOXICITY - Category 1
 H373 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

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%

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 No signal word.
 97-192 for ILM No signal word.

Section 2. Hazard(s) identification

Hazard statements	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer	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.
	2X Amplification Mastermix Library Binding Beads Capture Beads Avida Index Primer Pairs 97-192 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. P280 - Wear protective gloves. P273 - Avoid release to the environment. P260 - Do not breathe vapour. P270 - Do not eat, drink or smoke when using this product.
Hyb Enhancer	P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection. P260 - Do not breathe vapour.
2X Amplification Mastermix Library Binding Beads Capture Beads Avida Index Primer Pairs 97-192 for ILM	Not applicable. Not applicable. Not applicable. Not applicable.

Response

: 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 with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
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Section 2. Hazard(s) identification

Ligation Buffer	Not applicable.
Ligation Enzyme	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Adapter for ILM	Not applicable.
Hyb Blocker	Not applicable.
Hyb Buffer	P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor.
Hyb Enhancer	P308 + P313 - IF exposed or concerned: Get medical advice or attention.
2X Amplification Mastermix	Not applicable.
Library Binding Beads	Not applicable.
Capture Beads	Not applicable.
Avida Index Primer Pairs 97-192 for ILM	Not applicable.

Storage

: Nuclease-Free Water	Not applicable.
Library Wash Buffer	Not applicable.
Hyb Wash Buffer 1	Not applicable.
Hyb Wash Buffer 2	Not applicable.
Resuspension Buffer	Not applicable.
End Prep Buffer	Not applicable.
End Prep Enzyme	Not applicable.
Ligation Buffer	Not applicable.
Ligation Enzyme	Not applicable.
Adapter for ILM	Not applicable.
Hyb Blocker	Not applicable.
Hyb Buffer	Not applicable.
Hyb Enhancer	Not applicable.
2X Amplification Mastermix	Not applicable.
Library Binding Beads	Not applicable.
Capture Beads	Not applicable.
Avida Index Primer Pairs 97-192 for ILM	Not applicable.

Disposal

: Nuclease-Free Water	Not applicable.
Library Wash Buffer	Not applicable.
Hyb Wash Buffer 1	Not applicable.
Hyb Wash Buffer 2	Not applicable.
Resuspension Buffer	Not applicable.
End Prep Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
End Prep Enzyme	Not applicable.
Ligation Buffer	Not applicable.
Ligation Enzyme	Not applicable.
Adapter for ILM	Not applicable.
Hyb Blocker	Not applicable.
Hyb Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hyb Enhancer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
2X Amplification Mastermix	Not applicable.
Library Binding Beads	Not applicable.
Capture Beads	Not applicable.
Avida Index Primer Pairs 97-192 for ILM	Not applicable.

Supplemental label elements

Section 2. Hazard(s) identification

Additional warning phrases	: 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 97-192 for ILM	Not applicable.

Other hazards which do not result in classification	: 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 97-192 for ILM	None known.

Section 3. Composition and ingredient information

Substance/mixture	: Nuclease-Free Water	Substance
	Library Wash Buffer	Mixture
	Hyb Wash Buffer 1	Mixture
	Hyb Wash Buffer 2	Mixture
	Resuspension Buffer	Mixture
	End Prep Buffer	Mixture
	End Prep Enzyme	Mixture
	Ligation Buffer	Mixture
	Ligation Enzyme	Mixture
	Adapter for ILM	Mixture
	Hyb Blocker	Mixture
	Hyb Buffer	Mixture
	Hyb Enhancer	Mixture
	2X Amplification Mastermix	Mixture
	Library Binding Beads	Mixture
	Capture Beads	Mixture
	Avida Index Primer Pairs 97-192 for ILM	Mixture

CAS number/other identifiers

Section 3. Composition and ingredient information

Ingredient name	% (w/w)	CAS number
Nuclease-Free Water		
water	100	7732-18-5
Library Wash Buffer		
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	$\geq 10 - \leq 30$	25322-68-3
End Prep Buffer		
Magnesium chloride	<2.5	7786-30-3
End Prep Enzyme		
Glycerol	$\geq 30 - \leq 60$	56-81-5
Ligation Buffer		
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	$\geq 10 - \leq 30$	25322-68-3
Ligation Enzyme		
Glycerol	$\geq 30 - \leq 60$	56-81-5
Hyb Buffer		
tetramethylammonium chloride	$\geq 10 - < 15$	75-57-0
Hyb Enhancer		
Formamide	≥ 90	75-12-7
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	≤ 5	25322-68-3
2X Amplification Mastermix		
Glycerol	<10	56-81-5
Library Binding Beads		
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	$\geq 10 - \leq 30$	25322-68-3

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

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

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: 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 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

Section 4. First aid measures

	Capture Beads	medical attention if irritation occurs. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Avida Index Primer Pairs 97-192 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.
Inhalation	: Nuclease-Free Water	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Library Wash Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Hyb Wash Buffer 1	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Hyb Wash Buffer 2	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Resuspension Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	End Prep Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	End Prep Enzyme	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Ligation Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Ligation Enzyme	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Adapter for ILM	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Hyb Blocker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical

Section 4. First aid measures

	Hyb Buffer	attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Hyb Enhancer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	2X Amplification Mastermix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Library Binding Beads	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Capture Beads	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Avida Index Primer Pairs 97-192 for ILM	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: Nuclease-Free Water	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Library Wash Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Hyb Wash Buffer 1	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Hyb Wash Buffer 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Resuspension Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	End Prep Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	End Prep Enzyme	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing

Section 4. First aid measures

Ligation Buffer	before reuse. Clean shoes thoroughly before reuse. 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 97-192 for ILM	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	
: Nuclease-Free Water	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Library Wash Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, 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

Section 4. First aid measures

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

Section 4. First aid measures

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 97-192 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Avida Index Primer Pairs 97-192 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. No known significant effects or critical hazards.
Inhalation	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer	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.

Section 4. First aid measures

	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 97-192 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.
	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 97-192 for ILM	No known significant effects or critical hazards.
Ingestion	: Nuclease-Free Water	No known significant effects or critical hazards.
	Library Wash Buffer	No known significant effects or critical hazards.
	Hyb Wash Buffer 1	No known significant effects or critical hazards.
	Hyb Wash Buffer 2	No known significant effects or critical hazards.
	Resuspension Buffer	No known significant effects or critical hazards.
	End Prep Buffer	No known significant effects or critical hazards.
	End Prep Enzyme	No known significant effects or critical hazards.
	Ligation Buffer	No known significant effects or critical hazards.
	Ligation Enzyme	No known significant effects or critical hazards.
	Adapter for ILM	No known significant effects or critical hazards.
	Hyb Blocker	No known significant effects or critical hazards.
	Hyb Buffer	Harmful if swallowed. Causes damage to organs following a single exposure if swallowed.
	Hyb Enhancer	No known significant effects or critical hazards.
	2X Amplification Mastermix	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Avida Index Primer Pairs 97-192 for ILM	No known significant effects or critical hazards.
<u>Over-exposure signs/symptoms</u>		
Eye contact	: Nuclease-Free Water	No specific data.
	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Resuspension Buffer	No specific data.
	End Prep Buffer	No specific data.
	End Prep Enzyme	Adverse symptoms may include the following: irritation watering redness
	Ligation Buffer	No specific data.
	Ligation Enzyme	Adverse symptoms may include the following:

Section 4. First aid measures

		irritation watering redness
	Adapter for ILM Hyb Blocker Hyb Buffer	No specific data. No specific data. Adverse symptoms may include the following: pain or irritation watering redness
	Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Avida Index Primer Pairs 97-192 for ILM	No specific data. No specific data. No specific data. No specific data. No specific data.
Inhalation	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	2X Amplification Mastermix Library Binding Beads Capture Beads Avida Index Primer Pairs 97-192 for ILM	No specific data. No specific data. No specific data. No specific data.
Skin contact	: Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: irritation redness
	Hyb Enhancer	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	2X Amplification Mastermix Library Binding Beads Capture Beads Avida Index Primer Pairs 97-192 for ILM	No specific data. No specific data. No specific data. No specific data.

Section 4. First aid measures

Ingestion	:	Nuclease-Free Water	No specific data.
		Library Wash Buffer	No specific data.
		Hyb Wash Buffer 1	No specific data.
		Hyb Wash Buffer 2	No specific data.
		Resuspension Buffer	No specific data.
		End Prep Buffer	No specific data.
		End Prep Enzyme	No specific data.
		Ligation Buffer	No specific data.
		Ligation Enzyme	No specific data.
		Adapter for ILM	No specific data.
		Hyb Blocker	No specific data.
		Hyb Buffer	No specific data.
		Hyb Enhancer	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		2X Amplification Mastermix	No specific data.
		Library Binding Beads	No specific data.
		Capture Beads	No specific data.
		Avida Index Primer Pairs 97-192 for ILM	No specific data.

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

Notes to physician	:	Nuclease-Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Library Wash Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Hyb Wash Buffer 1	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Hyb Wash Buffer 2	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Resuspension Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		End Prep Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		End Prep Enzyme	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Ligation Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		Ligation Enzyme	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Adapter for ILM	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Hyb Blocker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Hyb Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 4. First aid measures

	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 97-192 for ILM	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Nuclease-Free Water	No specific treatment.
	Library Wash Buffer	No specific treatment.
	Hyb Wash Buffer 1	No specific treatment.
	Hyb Wash Buffer 2	No specific treatment.
	Resuspension Buffer	No specific treatment.
	End Prep Buffer	No specific treatment.
	End Prep Enzyme	No specific treatment.
	Ligation Buffer	No specific treatment.
	Ligation Enzyme	No specific treatment.
	Adapter for ILM	No specific treatment.
	Hyb Blocker	No specific treatment.
	Hyb Buffer	No specific treatment.
	Hyb Enhancer	No specific treatment.
	2X Amplification Mastermix	No specific treatment.
	Library Binding Beads	No specific treatment.
	Capture Beads	No specific treatment.
	Avida Index Primer Pairs 97-192 for ILM	No specific treatment.
Protection of first-aiders	: Nuclease-Free Water	No action shall be taken involving any personal risk or without suitable training.
	Library Wash Buffer	No action shall be taken involving any personal risk or without suitable training.
	Hyb Wash Buffer 1	No action shall be taken involving any personal risk or without suitable training.
	Hyb Wash Buffer 2	No action shall be taken involving any personal risk or without suitable training.
	Resuspension Buffer	No action shall be taken involving any personal risk or without suitable training.
	End Prep Buffer	No action shall be taken involving any personal risk or without suitable training.
	End Prep Enzyme	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	Ligation Buffer	No action shall be taken involving any personal risk or without suitable training.
	Ligation Enzyme	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	Adapter for ILM	No action shall be taken involving any personal risk or without suitable training.
	Hyb Blocker	No action shall be taken involving any personal risk or without suitable training.
	Hyb Buffer	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth

Section 4. First aid measures

Hyb Enhancer	resuscitation. 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.
Capture Beads	No action shall be taken involving any personal risk or without suitable training.
Avida Index Primer Pairs 97-192 for ILM	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media

: 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 97-192 for ILM	Use an extinguishing agent suitable for the surrounding fire.

Section 5. Firefighting measures

Unsuitable extinguishing media	: 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 97-192 for ILM	None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known.
Specific hazards arising from the chemical	: 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 97-192 for ILM	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Firefighting measures

Hazardous thermal decomposition products	Nuclease-Free Water	No specific data.
	Library Wash Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
	Hyb Wash Buffer 1	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
	Hyb Wash Buffer 2	No specific data.
	Resuspension Buffer	No specific data.
	End Prep Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	End Prep Enzyme	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Ligation Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds
	Ligation Enzyme	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Adapter for ILM	No specific data.
	Hyb Blocker	No specific data.
	Hyb Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides phosphorus oxides halogenated compounds metal oxide/oxides
	Hyb Enhancer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
	2X Amplification Mastermix	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Library Binding Beads	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides	
Capture Beads	No specific data.	
Avida Index Primer Pairs 97-192 for ILM	No specific data.	

Section 5. Firefighting measures

Special protective actions for fire-fighters	: Nuclease-Free Water	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Library Wash Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Hyb Wash Buffer 1	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Hyb Wash Buffer 2	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Resuspension Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	End Prep Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	End Prep Enzyme	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Ligation Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Ligation Enzyme	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Adapter for ILM	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Hyb Blocker	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Hyb Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Hyb Enhancer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No 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

Section 5. Firefighting measures

		action shall be taken involving any personal risk or without suitable training.
	Avida Index Primer Pairs 97-192 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.
Special protective equipment for fire-fighters	: Nuclease-Free Water	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Library Wash Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Hyb Wash Buffer 1	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Hyb Wash Buffer 2	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Resuspension Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	End Prep Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	End Prep Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Ligation Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Ligation Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Adapter for ILM	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (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

Section 5. Firefighting measures

Capture Beads	equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Avida Index Primer Pairs 97-192 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

For non-emergency personnel	: Nuclease-Free Water	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt 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 spilt 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 spilt 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 spilt 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 spilt 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 spilt 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 spilt material. Avoid breathing vapour 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

Section 6. Accidental release measures

Ligation Enzyme	through spilt material. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Adapter for ILM	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Hyb Blocker	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Hyb Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Hyb Enhancer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
2X Amplification Mastermix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Library Binding Beads	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Capture Beads	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Avida Index Primer Pairs 97-192 for ILM	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

Section 6. Accidental release measures

For emergency responders :	Nuclease-Free Water	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Library Wash Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Hyb Wash Buffer 1	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Hyb Wash Buffer 2	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Resuspension Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	End Prep Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	End Prep Enzyme	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Ligation Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Ligation Enzyme	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Adapter for ILM	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Hyb Blocker	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Hyb Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Hyb Enhancer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	2X Amplification Mastermix	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Library Binding Beads	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Capture Beads	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Avida Index Primer Pairs 97-192 for ILM
If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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

Section 6. Accidental release measures

Hyb Enhancer	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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
2X Amplification Mastermix	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Library Binding Beads	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Capture Beads	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Avida Index Primer Pairs 97-192 for ILM	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up : Nuclease-Free Water

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

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

Section 6. Accidental release measures

Avida Index Primer Pairs 97-192 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.
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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 vapour 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 vapour 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 vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
		Adapter for ILM	Put on appropriate personal protective equipment (see Section 8).
		Hyb Blocker	Put on appropriate personal protective equipment (see Section 8).
		Hyb Buffer	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
		Hyb Enhancer	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during

Section 7. Handling and storage

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 vapour 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 97-192 for ILM	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Nuclease-Free Water	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Library Wash Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Hyb Wash Buffer 1	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Hyb Wash Buffer 2	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face 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

Section 7. Handling and storage

	before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Ligation Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Ligation Enzyme	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Adapter for ILM	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Hyb Blocker	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Hyb Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Hyb Enhancer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
2X Amplification Mastermix	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Library Binding Beads	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Capture Beads	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face

Section 7. Handling and storage

Avida Index Primer Pairs
97-192 for ILM

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

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

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 unlabelled 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 unlabelled 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

Section 7. Handling and storage

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

Section 7. Handling and storage

Hyb Buffer	ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
2X Amplification Mastermix	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled 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 unlabelled 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Avida Index Primer Pairs 97-192 for ILM	Store in accordance with local regulations. Store in original container protected from direct sunlight in a

Section 7. Handling and storage

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

Section 8. Exposure controls and personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
Library Wash Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	DFG MAC-values list (Germany, 7/2023). PEAK: 400 mg/m ³ , 4 times per shift, 15 minutes. Form: inhalable fraction TWA: 200 mg/m ³ 8 hours. Form: inhalable fraction
End Prep Enzyme Glycerol	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m ³ 8 hours.
Ligation Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	DFG MAC-values list (Germany, 7/2023). PEAK: 400 mg/m ³ , 4 times per shift, 15 minutes. Form: inhalable fraction TWA: 200 mg/m ³ 8 hours. Form: inhalable fraction
Ligation Enzyme Glycerol	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m ³ 8 hours.
Hyb Enhancer Formamide	Safe Work Australia (Australia, 10/2022). Absorbed through skin. TWA: 18 mg/m ³ 8 hours. TWA: 10 ppm 8 hours.
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	DFG MAC-values list (Germany, 7/2023). PEAK: 400 mg/m ³ , 4 times per shift, 15 minutes. Form: inhalable fraction TWA: 200 mg/m ³ 8 hours. Form: inhalable fraction
2X Amplification Mastermix Glycerol	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m ³ 8 hours.
Library Binding Beads Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	DFG MAC-values list (Germany, 7/2023). PEAK: 400 mg/m ³ , 4 times per shift, 15 minutes. Form: inhalable fraction TWA: 200 mg/m ³ 8 hours. Form: inhalable fraction

[Biological exposure indices](#)

Section 8. Exposure controls and personal protection

No exposure indices known.

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

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

Section 9. Physical and chemical properties and safety characteristics

	Hyb Enhancer	Liquid.
	2X Amplification Mastermix	Liquid.
	Library Binding Beads	Liquid.
	Capture Beads	Liquid.
	Avida Index Primer Pairs 97-192 for ILM	Liquid.
Colour	: Nuclease-Free Water	Colourless.
	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 97-192 for ILM	Not available.
Odour	: Nuclease-Free Water	Odourless.
	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 97-192 for ILM	Not available.
Odour threshold	: Nuclease-Free Water	Not available.
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	Not available.
	Resuspension Buffer	Not available.
	End Prep Buffer	Not available.
	End Prep Enzyme	Not available.
	Ligation Buffer	Not available.
	Ligation Enzyme	Not available.
	Adapter for ILM	Not available.
	Hyb Blocker	Not available.
	Hyb Buffer	Not available.
	Hyb Enhancer	Not available.
	2X Amplification Mastermix	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Avida Index Primer Pairs 97-192 for ILM	Not available.

Section 9. Physical and chemical properties and safety characteristics

pH	:	Nuclease-Free Water	7
		Library Wash Buffer	Not available.
		Hyb Wash Buffer 1	7.2 to 7.6
		Hyb Wash Buffer 2	7.2 to 7.6
		Resuspension Buffer	8
		End Prep Buffer	8
		End Prep Enzyme	7.5
		Ligation Buffer	8
		Ligation Enzyme	7.5
		Adapter for ILM	8
		Hyb Blocker	8
		Hyb Buffer	7.5
		Hyb Enhancer	Not available.
		2X Amplification Mastermix	Not available.
		Library Binding Beads	8
		Capture Beads	Not available.
		Avida Index Primer Pairs 97-192 for ILM	8
Melting point/freezing point	:	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 97-192 for ILM	0°C (32°F)
Boiling point, initial boiling point, and boiling range	:	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 97-192 for ILM	100°C (212°F)
Flash point	:		

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
Library Wash Buffer						
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	171 to 235	339.8 to 455	-	199 to 238	390.2 to 460.4	-
End Prep Enzyme						
Glycerol	-	-	-	177	350.6	-
Ligation Buffer						
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	171 to 235	339.8 to 455	-	199 to 238	390.2 to 460.4	-
Ligation Enzyme						
Glycerol	-	-	-	177	350.6	-
Hyb Enhancer						
Formamide	150	302	-	152	305.6	DIN EN ISO 2592
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	171 to 235	339.8 to 455	-	199 to 238	390.2 to 460.4	-
2X Amplification Mastermix						
Glycerol	-	-	-	177	350.6	-
Library Binding Beads						
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	171 to 235	339.8 to 455	-	199 to 238	390.2 to 460.4	-

Section 9. Physical and chemical properties and safety characteristics

Evaporation rate	:	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 97-192 for ILM	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Flammability	:	Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Avida Index Primer Pairs 97-192 for ILM	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Lower and upper explosion limit/flammability limit	:	Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Avida Index Primer Pairs 97-192 for ILM	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Vapour pressure	:	Nuclease-Free Water	2.3 kPa (17.5 mm Hg) [room temperature] 12.3 kPa (92.258 mm Hg) [50°C (122°F)]

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Vapour Pressure at 20 °C			Vapour pressure at 50 °C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Library Wash Buffer						
water	17.5	2.3	-	92.258	12.3	-
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	0.0000003	0.00000004	-	-	-	-
Hyb Wash Buffer 1						
water	17.5	2.3	-	92.258	12.3	-
Hyb Wash Buffer 2						
water	17.5	2.3	-	92.258	12.3	-
Resuspension Buffer						
water	17.5	2.3	-	92.258	12.3	-
End Prep Buffer						
water	17.5	2.3	-	92.258	12.3	-
End Prep Enzyme						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
Ligation Buffer						
water	17.5	2.3	-	92.258	12.3	-
Ligation Enzyme						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
Adapter for ILM						
water	17.5	2.3	-	92.258	12.3	-
Hyb Blocker						

Section 9. Physical and chemical properties and safety characteristics

water	17.5	2.3	-	92.258	12.3	-
Hyb Buffer						
water	17.5	2.3	-	92.258	12.3	-
tetramethylammonium chloride	0.000000001	0.0000000013	EU A.4	-	-	-
Hyb Enhancer						
Formamide	0.045	0.006	-	-	-	-
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	0.0000003	0.00000004	-	-	-	-
2X Amplification Mastermix						
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
Library Binding Beads						
water	17.5	2.3	-	92.258	12.3	-
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	0.0000003	0.00000004	-	-	-	-
Capture Beads						
water	17.5	2.3	-	92.258	12.3	-
Avida Index Primer Pairs 97-192 for ILM						
water	17.5	2.3	-	92.258	12.3	-

Relative vapour 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.

Section 9. Physical and chemical properties and safety characteristics

	Hyb Enhancer	Not available.
	2X Amplification Mastermix	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Avida Index Primer Pairs 97-192 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 97-192 for ILM	Not available.

Solubility(ies)	Media	Result
	Nuclease-Free Water water	Soluble
	Library Wash Buffer water	Soluble
	Hyb Wash Buffer 1 water	Soluble
	Hyb Wash Buffer 2 water	Soluble
	Resuspension Buffer water	Soluble
	End Prep Buffer water	Soluble
	End Prep Enzyme water	Soluble
	Ligation Buffer water	Soluble
	Ligation Enzyme water	Soluble
	Adapter for ILM water	Soluble
	Hyb Blocker water	Soluble
	Hyb Buffer water	Soluble
	Hyb Enhancer water	Soluble
	Library Binding Beads water	Soluble
	Capture Beads water	Soluble
	Avida Index Primer Pairs 97-192 for ILM water	Soluble

Section 9. Physical and chemical properties and safety characteristics

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 97-192 for ILM	Not applicable.	

Auto-ignition temperature	Ingredient name	°C	°F	Method
	Library Wash Buffer			
	Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	360	680	-
	End Prep Enzyme			
	Glycerol	370	698	-
	Ligation Buffer			
	Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	360	680	-
	Ligation Enzyme			
	Glycerol	370	698	-
	Hyb Enhancer			
	Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	360	680	-
	Formamide	>500	>932	ASTM D 2155-66
	2X Amplification Mastermix			
	Glycerol	370	698	-
	Library Binding Beads			
	Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	360	680	-

Section 9. Physical and chemical properties and safety characteristics

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 97-192 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 97-192 for ILM	Not available.

Particle characteristics

Median particle size	:	Nuclease-Free Water	Not applicable.
		Library Wash Buffer	Not applicable.
		Hyb Wash Buffer 1	Not applicable.
		Hyb Wash Buffer 2	Not applicable.
		Resuspension Buffer	Not applicable.
		End Prep Buffer	Not applicable.
		End Prep Enzyme	Not applicable.
		Ligation Buffer	Not applicable.
		Ligation Enzyme	Not applicable.
		Adapter for ILM	Not applicable.
		Hyb Blocker	Not applicable.
		Hyb Buffer	Not applicable.
		Hyb Enhancer	Not applicable.
		2X Amplification Mastermix	Not applicable.
		Library Binding Beads	Not applicable.
		Capture Beads	Not applicable.
		Avida Index Primer Pairs 97-192 for ILM	Not applicable.

Section 10. Stability and reactivity

Reactivity	: Nuclease-Free Water	No specific test data related to reactivity available for this product or its ingredients.
	Library Wash Buffer	No specific test data related to reactivity available for this product or its ingredients.
	Hyb Wash Buffer 1	No specific test data related to reactivity available for this product or its ingredients.
	Hyb Wash Buffer 2	No specific test data related to reactivity available for this product or its ingredients.
	Resuspension Buffer	No specific test data related to reactivity available for this product or its ingredients.
	End Prep Buffer	No specific test data related to reactivity available for this product or its ingredients.
	End Prep Enzyme	No specific test data related to reactivity available for this product or its ingredients.
	Ligation Buffer	No specific test data related to reactivity available for this product or its ingredients.
	Ligation Enzyme	No specific test data related to reactivity available for this product or its ingredients.
	Adapter for ILM	No specific test data related to reactivity available for this product or its ingredients.
	Hyb Blocker	No specific test data related to reactivity available for this product or its ingredients.
	Hyb Buffer	No specific test data related to reactivity available for this product or its ingredients.
	Hyb Enhancer	No specific test data related to reactivity available for this product or its ingredients.
	2X Amplification Mastermix	No specific test data related to reactivity available for this product or its ingredients.
	Library Binding Beads	No specific test data related to reactivity available for this product or its ingredients.
	Capture Beads	No specific test data related to reactivity available for this product or its ingredients.
	Avida Index Primer Pairs 97-192 for ILM	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: 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 97-192 for ILM	The product is stable.
Possibility of hazardous reactions	: 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.

Section 10. Stability and reactivity

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 97-192 for ILM	Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

: Nuclease-Free Water	No specific data.
Library Wash Buffer	No specific data.
Hyb Wash Buffer 1	No specific data.
Hyb Wash Buffer 2	No specific data.
Resuspension Buffer	No specific data.
End Prep Buffer	No specific data.
End Prep Enzyme	No specific data.
Ligation Buffer	No specific data.
Ligation Enzyme	No specific data.
Adapter for ILM	No specific data.
Hyb Blocker	No specific data.
Hyb Buffer	No specific data.
Hyb Enhancer	No specific data.
2X Amplification Mastermix	No specific data.
Library Binding Beads	No specific data.
Capture Beads	No specific data.
Avida Index Primer Pairs 97-192 for ILM	No specific data.

Incompatible materials

: Nuclease-Free Water	May react or be incompatible with oxidising materials.
Library Wash Buffer	May react or be incompatible with oxidising materials.
Hyb Wash Buffer 1	May react or be incompatible with oxidising materials.
Hyb Wash Buffer 2	May react or be incompatible with oxidising materials.
Resuspension Buffer	May react or be incompatible with oxidising materials.
End Prep Buffer	May react or be incompatible with oxidising materials.
End Prep Enzyme	May react or be incompatible with oxidising materials.
Ligation Buffer	May react or be incompatible with oxidising materials.
Ligation Enzyme	May react or be incompatible with oxidising materials.
Adapter for ILM	May react or be incompatible with oxidising materials.
Hyb Blocker	May react or be incompatible with oxidising materials.
Hyb Buffer	May react or be incompatible with oxidising materials.
Hyb Enhancer	May react or be incompatible with oxidising materials.
2X Amplification Mastermix	May react or be incompatible with oxidising materials.
Library Binding Beads	May react or be incompatible with oxidising materials.
Capture Beads	May react or be incompatible with oxidising materials.

Section 10. Stability and reactivity

	Avida Index Primer Pairs 97-192 for ILM	May react or be incompatible with oxidising materials.
Hazardous decomposition products	: Nuclease-Free Water	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Library Wash Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Wash Buffer 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Wash Buffer 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Resuspension Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	End Prep Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	End Prep Enzyme	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Ligation Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Ligation Enzyme	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Adapter for ILM	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Blocker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Enhancer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	2X Amplification Mastermix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Library Binding Beads	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Capture Beads	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Avida Index Primer Pairs 97-192 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
End Prep Buffer Magnesium chloride	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat	2800 mg/kg	-
End Prep Enzyme Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Ligation Enzyme Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Hyb Buffer tetramethylammonium chloride	LD50 Dermal	Rabbit - Male, Female	200 to 500 mg/ kg	-
	LD50 Oral	Rat	50 mg/kg	-
Hyb Enhancer 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	-
2X Amplification Mastermix Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Library Wash Buffer Poly(oxy-1,2-ethanediyl), α - hydro- ω -hydroxy- Ethane- 1,2-diol, ethoxylated	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
End Prep Enzyme Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Ligation Buffer Poly(oxy-1,2-ethanediyl), α - hydro- ω -hydroxy- Ethane- 1,2-diol, ethoxylated	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Ligation Enzyme Glycerol	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Section 11. Toxicological information

Hyb Enhancer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
2X Amplification Mastermix Glycerol	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Library Binding Beads Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Hyb Buffer tetramethylammonium chloride	Category 1	oral	central nervous system (CNS)

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on likely routes of exposure	Nuclease-Free Water	Not available.
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	Not available.
	Resuspension Buffer	Not available.
	End Prep Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	End Prep Enzyme	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	Ligation Buffer	Not available.
	Ligation Enzyme	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	Adapter for ILM	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	Hyb Blocker	Not available.
	Hyb Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	Hyb Enhancer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	2X Amplification Mastermix	Not available.
	Library Binding Beads	Not available.
Capture Beads	Not available.	
Avida Index Primer Pairs 97-192 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 97-192 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 97-192 for ILM	No known significant effects or critical hazards.

Section 11. Toxicological information

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.
		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 97-192 for ILM	No known significant effects or critical hazards.	
Ingestion	:	Nuclease-Free Water	No known significant effects or critical hazards.
		Library Wash Buffer	No known significant effects or critical hazards.
		Hyb Wash Buffer 1	No known significant effects or critical hazards.
		Hyb Wash Buffer 2	No known significant effects or critical hazards.
		Resuspension Buffer	No known significant effects or critical hazards.
		End Prep Buffer	No known significant effects or critical hazards.
		End Prep Enzyme	No known significant effects or critical hazards.
		Ligation Buffer	No known significant effects or critical hazards.
		Ligation Enzyme	No known significant effects or critical hazards.
		Adapter for ILM	No known significant effects or critical hazards.
		Hyb Blocker	No known significant effects or critical hazards.
		Hyb Buffer	Harmful if swallowed. Causes damage to organs following a single exposure if swallowed.
		Hyb Enhancer	No known significant effects or critical hazards.
		2X Amplification Mastermix	No known significant effects or critical hazards.
		Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.	
	Avida Index Primer Pairs 97-192 for ILM	No known significant effects or critical hazards.	

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Nuclease-Free Water	No specific data.
		Library Wash Buffer	No specific data.
		Hyb Wash Buffer 1	No specific data.
		Hyb Wash Buffer 2	No specific data.
		Resuspension Buffer	No specific data.
		End Prep Buffer	No specific data.
		End Prep Enzyme	Adverse symptoms may include the following: irritation watering redness
		Ligation Buffer	No specific data.
		Ligation Enzyme	Adverse symptoms may include the following: irritation watering redness
		Adapter for ILM	No specific data.
		Hyb Blocker	No specific data.
		Hyb Buffer	Adverse symptoms may include the following: pain or irritation watering redness
		Hyb Enhancer	No specific data.

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 97-192 for ILM	No specific data.
Inhalation	: Nuclease-Free Water	No specific data.
	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Resuspension Buffer	No specific data.
	End Prep Buffer	No specific data.
	End Prep Enzyme	No specific data.
	Ligation Buffer	No specific data.
	Ligation Enzyme	No specific data.
	Adapter for ILM	No specific data.
	Hyb Blocker	No specific data.
	Hyb Buffer	No specific data.
	Hyb Enhancer	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	2X Amplification Mastermix	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Avida Index Primer Pairs 97-192 for ILM	No specific data.
Skin contact	: Nuclease-Free Water	No specific data.
	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Resuspension Buffer	No specific data.
	End Prep Buffer	No specific data.
	End Prep Enzyme	No specific data.
	Ligation Buffer	No specific data.
	Ligation Enzyme	No specific data.
	Adapter for ILM	No specific data.
	Hyb Blocker	No specific data.
	Hyb Buffer	Adverse symptoms may include the following: irritation redness
	Hyb Enhancer	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	2X Amplification Mastermix	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Avida Index Primer Pairs 97-192 for ILM	No specific data.
Ingestion	: Nuclease-Free Water	No specific data.
	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Resuspension Buffer	No specific data.
	End Prep Buffer	No specific data.
	End Prep Enzyme	No specific data.
	Ligation Buffer	No specific data.
	Ligation Enzyme	No specific data.
	Adapter for ILM	No specific data.
	Hyb Blocker	No specific data.
	Hyb Buffer	No specific data.
	Hyb Enhancer	Adverse symptoms may include the following:

Section 11. Toxicological information

	reduced foetal weight
	increase in foetal deaths
	skeletal malformations
2X Amplification Mastermix	No specific data.
Library Binding Beads	No specific data.
Capture Beads	No specific data.
Avida Index Primer Pairs 97-192 for ILM	No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: 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 97-192 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 97-192 for ILM	No known significant effects or critical hazards.

Section 11. Toxicological information

Mutagenicity	: 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 97-192 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. No known significant effects or critical hazards.
Reproductive toxicity	: 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 97-192 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. 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 (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Library Wash Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	28000	N/A	N/A	N/A	N/A
End Prep Buffer Magnesium chloride	2800	N/A	N/A	N/A	N/A
End Prep Enzyme Glycerol	12600	N/A	N/A	N/A	N/A
Ligation Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy-Ethane-1,2-diol, ethoxylated	28000	N/A	N/A	N/A	N/A
Ligation Enzyme Glycerol	12600	N/A	N/A	N/A	N/A
Hyb Buffer					

Section 11. Toxicological information

Hyb Buffer tetramethylammonium chloride	456.2 50	2737.2 300	N/A N/A	N/A N/A	N/A N/A
Hyb Enhancer Formamide	5570	17000	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	28000	N/A	N/A	N/A	N/A
2X Amplification Mastermix Glycerol	12600	N/A	N/A	N/A	N/A
Library Binding Beads Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	28000	N/A	N/A	N/A	N/A

Other information	: End Prep Buffer	Adverse symptoms may include the following: May cause skin sensitisation.
	Adapter for ILM	Adverse symptoms may include the following: May cause skin sensitisation.
	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
Library Wash Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	Acute EC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 >1000000 μ g/l Fresh water	Fish - <i>Salmo salar</i> - Parr	96 hours
End Prep Buffer Magnesium chloride	Acute EC50 >100 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Acute EC50 180000 μ g/l Fresh water	Crustaceans - <i>Eudiaptomus padanus</i> ssp. <i>padanus</i> - Adult	48 hours
	Acute IC50 6.8 mg/l Fresh water	Aquatic plants - <i>Lemna aequinoctialis</i>	96 hours
	Acute LC50 32000 μ g/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
End Prep Enzyme Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Ligation Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	Acute EC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 >1000000 μ g/l Fresh water	Fish - <i>Salmo salar</i> - Parr	96 hours
Ligation Enzyme Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Hyb Buffer tetramethylammonium	Acute LC50 462 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours

Section 12. Ecological information

chloride			
Hyb Enhancer Formamide	Acute EC50 >500 mg/l Fresh water Acute EC50 >500 mg/l Fresh water Acute LC50 6569 mg/l Fresh water Acute NOEC 4640 mg/l Fresh water Acute NOEC 4640 mg/l Fresh water Acute EC50 >100 mg/l Fresh water	Algae Daphnia Fish Algae Fish Daphnia - <i>Daphnia magna</i>	72 hours 48 hours 96 hours 72 hours 96 hours 48 hours
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	Acute LC50 >1000000 μ g/l Fresh water	Fish - <i>Salmo salar</i> - Parr	96 hours
2X Amplification Mastermix Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Library Binding Beads Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	Acute EC50 >100 mg/l Fresh water Acute LC50 >1000000 μ g/l Fresh water	Daphnia - <i>Daphnia magna</i> Fish - <i>Salmo salar</i> - Parr	48 hours 96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Library Wash Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	OECD 301D Ready Biodegradability - Closed Bottle Test	74.85 % - Readily - 28 days	4 mg/l	-
End Prep Enzyme Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Ligation Buffer Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	OECD 301D Ready Biodegradability - Closed Bottle Test	74.85 % - Readily - 28 days	4 mg/l	-
Ligation Enzyme Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Hyb Enhancer Formamide	OECD 301A Ready Biodegradability - DOC Die-Away Test	99 % - Readily - 28 days	-	-
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	OECD 301D Ready Biodegradability - Closed Bottle Test	74.85 % - Readily - 28 days	4 mg/l	-

Section 12. Ecological information

2X Amplification Mastermix Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Library Binding Beads Poly(oxy-1,2-ethanediyl), α - hydro- ω -hydroxy- Ethane- 1,2-diol, ethoxylated	OECD 301D Ready Biodegradability - Closed Bottle Test	74.85 % - Readily - 28 days	4 mg/l	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Nuclease-Free Water water	-	-	Readily
Library Wash Buffer Poly(oxy-1,2-ethanediyl), α - hydro- ω -hydroxy- Ethane- 1,2-diol, ethoxylated	-	-	Readily
Ligation Buffer Poly(oxy-1,2-ethanediyl), α - hydro- ω -hydroxy- Ethane- 1,2-diol, ethoxylated	-	-	Readily
Hyb Buffer tetramethylammonium chloride	-	-	Readily
Hyb Enhancer Formamide	-	-	Readily
Poly(oxy-1,2-ethanediyl), α - hydro- ω -hydroxy- Ethane- 1,2-diol, ethoxylated	-	-	Readily
Library Binding Beads Poly(oxy-1,2-ethanediyl), α - hydro- ω -hydroxy- Ethane- 1,2-diol, ethoxylated	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Nuclease-Free Water water	-1.38	-	Low
Library Wash Buffer Poly(oxy-1,2-ethanediyl), α - hydro- ω -hydroxy- Ethane- 1,2-diol, ethoxylated	-	3.2	Low
End Prep Enzyme Glycerol	-1.76	-	Low
Ligation Buffer Poly(oxy-1,2-ethanediyl), α - hydro- ω -hydroxy- Ethane- 1,2-diol, ethoxylated	-	3.2	Low

Section 12. Ecological information

Ligation Enzyme Glycerol	-1.76	-	Low
Hyb Buffer tetramethylammonium chloride	<-1.6	-	Low
Hyb Enhancer Formamide	-0.82	-	Low
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	-	3.2	Low
2X Amplification Mastermix Glycerol	-1.76	-	Low
Library Binding Beads Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	-	3.2	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 minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

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

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

New Zealand : Not determined.

United States : Not determined.

Section 16. Any other relevant information

History

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

Date of previous issue : 23/02/2024

Version : 1.1

Key to abbreviations

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

Procedure used to derive the classification

Classification	Justification
End Prep Buffer LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	Calculation method
End Prep Enzyme SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
Ligation Enzyme	

Section 16. Any other relevant information

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
Hyb Buffer	
ACUTE TOXICITY (oral) - Category 4	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	Calculation method
Hyb Enhancer	
CARCINOGENICITY - Category 2	Calculation method
REPRODUCTIVE TOXICITY - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2	Calculation method

✔ Indicates information that has changed from previously issued version.

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