# SAFETY DATA SHEET



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

#### Section 1. Identification

Product identifier : Avida DNA Reagent Kit with 17-32 Index Primer Pairs for ILM, 16 Reactions, Part

Number G9409B

Part no. (chemical kit)

Part no.

: Avida DNA and Duo Reagent Box 2, 16 5282-0141

reactions

G9409B

Nuclease-Free Water 5271-0107 Library Wash Buffer 5271-0103 Hyb Wash Buffer 1 5271-0104 Hyb Wash Buffer 2 5271-0105 Resuspension Buffer 5271-0106 Avida DNA Reagent Box 1, 16 Reactions 5282-0139 **End Prep Buffer** 5271-0094 End Prep Enzyme 5271-0095 Ligation Buffer 5271-0096 Ligation Enzyme 5271-0097 Adapter for ILM 5271-0112 Hyb Blocker 5271-0099 Hyb Buffer 5271-0100 Hvb Enhancer 5271-0101 2X Amplification Mastermix 5271-0102 Avida Beads Box, 16 Reactions 5282-0143 Library Binding Beads 5271-0108 Capture Beads 5271-0109 Avida Index Primer Pairs 17-32 for ILM 5280-0053 Index Primer Mix for ILM 17-24 5274-0077 Index Primer Mix for ILM 25-32 5274-0078

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

Identified uses : Analytical reagent.

For research use only.

Nuclease-Free Water 0.88 ml (16 reactions) Library Wash Buffer 6.336 ml (16 reactions) Hyb Wash Buffer 1 2 x 5.28 ml (16 reactions) Hyb Wash Buffer 2 2 x 2.64 ml (16 reactions) Resuspension Buffer 0.352 ml (16 reactions) **End Prep Buffer** 0.124 ml (16 reactions) 0.053 ml (16 reactions) End Prep Enzyme Ligation Buffer 0.44 ml (16 reactions) Ligation Enzyme 0.106 ml (16 reactions) 0.088 ml (16 reactions) Adapter for ILM Hvb Blocker 0.044 ml (16 reactions) Hvb Buffer 0.81 ml (16 reactions) Hyb Enhancer 0.132 ml (16 reactions) 2X Amplification Mastermix 0.44 ml (16 reactions) Library Binding Beads 1.532 ml (16 reactions) Capture Beads 0.141 ml (16 reactions)

Index Primer Mix for ILM 17-24 8 x 0.005 ml Index Primer Mix for ILM 25-32 8 x 0.005 ml

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

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#### **Section 1. Identification**

Supplier/Manufacturer

: Agilent Technologies Australia Pty Ltd

679 Springvale Road

Mulgrave

Victoria 3170, Australia

1800 802 402

Emergency telephone number (with hours of

operation)

: CHEMTREC®: +(61)-290372994

# Section 2. Hazard(s) identification

#### Classification of the substance or mixture

**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









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** 

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## Section 2. Hazard(s) identification

2X Amplification Mastermix Library Binding Beads Capture Beads

Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

No signal word. No signal word. No signal word. No signal word.

No signal word.

#### **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

H320 - Causes eye irritation. No known significant effects or critical hazards.

Adapter for ILM Hyb Blocker Hyb Buffer

Hyb Enhancer

H320 - Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. H302 - Harmful if swallowed.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

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

H412 - Harmful to aquatic life with long lasting effects.

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)

2X Amplification Mastermix Library Binding Beads Capture Beads

Index Primer Mix for ILM 17-24

Index Primer Mix for ILM 25-32

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

No known significant effects or critical hazards.

#### **Precautionary statements**

#### **Prevention**

: Nuclease-Free Water Not applicable. Library Wash Buffer Not applicable. Hvb Wash Buffer 1 Not applicable. Hyb Wash Buffer 2 Not applicable. Resuspension Buffer Not applicable.

P273 - Avoid release to the environment. **End Prep Buffer** 

End Prep Enzyme Not applicable. Ligation Buffer Not applicable. Not applicable. Ligation Enzyme Adapter for ILM Not applicable. Hyb Blocker Not applicable.

Hyb Buffer P280 - Wear protective gloves.

P273 - Avoid release to the environment.

P260 - Do not breathe 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

Index Primer Mix for ILM

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Index Primer Mix for ILM

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Not applicable. Not applicable. Not applicable.

Not applicable.

Not applicable.

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Section 2. Hazard	(s) identification	
Response	: Nuclease-Free Water	Not applicable.
	Library Wash Buffer	Not applicable.
	Hyb Ŵash Buffer 1	Not applicable.
	Hyb Wash Buffer 2	Not applicable.
	Resuspension Buffer	Not applicable.
	End Prep Buffer	Not applicable.
	End Prep Enzyme	P305 + P351 + P338 - IF IN EYES: Rinse cautiously
		with water for several minutes. Remove contact
		lenses, if present and easy to do. Continue rinsing.
		P337 + P313 - If eye irritation persists: Get medical advice or attention.
	Ligation Buffer	Not applicable.
	Ligation Enzyme	P305 + P351 + P338 - IF IN EYES: Rinse cautiously
	ga	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 <sup>'</sup> 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.
	Index Primer Mix for ILM 17-24	Not applicable.
	Index Primer Mix for ILM 25-32	Not applicable.
Storage	: Nuclease-Free Water	Not applicable.
_	Library Wash Buffer	Not applicable.
	Hyb Wash Buffer 1	Not applicable.
	Hyb Wash Buffer 2	Not applicable.
	Resuspension Buffer	Not applicable.
	End Prep Buffer	Not applicable.
	End Prep Enzyme	Not applicable.
	Ligation Buffer	Not applicable.
	Ligation Enzyme	Not applicable.
	Adapter for ILM	Not applicable.
	Hyb Blocker	Not applicable.
	Hyb Buffer	Not applicable.
	Hyb Enhancer	Not applicable.
	2X Amplification Mastermix	Not applicable.
	Library Binding Beads	Not applicable.
	Capture Beads	Not applicable.
	Index Primer Mix for ILM 17-24	Not applicable.
	Index Primer Mix for ILM 25-32	Not applicable.
Disposal	: Nuclease-Free Water	Not applicable.
	Library Wash Buffer	Not applicable.
	Hyb Wash Buffer 1	Not applicable.
	Hyb Wash Buffer 2	Not applicable.
	Resuspension Buffer	Not applicable.
	End Prep Buffer	P501 - Dispose of contents and container in
		accordance with all local, regional, national and
		international regulations.
	End Prep Enzyme	Not applicable.
	Ligation Buffer	Not applicable.
	Ligation Enzyme	Not applicable

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Not applicable.

Not applicable.

Not applicable.

Ligation Enzyme

Adapter for ILM

Hyb Blocker

## Section 2. Hazard(s) identification

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 Library Binding Beads

Capture Beads

Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

Not applicable. Not applicable. Not applicable. Not applicable.

Not applicable.

#### Supplemental label elements

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. Not applicable. End Prep Enzyme Not applicable. Ligation Buffer Ligation Enzyme Not applicable. Adapter for ILM Not applicable. Hyb Blocker Not applicable. Hyb Buffer Not applicable. Not applicable. Hyb Enhancer 2X Amplification Mastermix Not applicable. Library Binding Beads Not applicable. Capture Beads Not applicable. Index Primer Mix for ILM Not applicable.

17-24

Index Primer Mix for ILM 25-32

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. None known. 2X Amplification Mastermix Library Binding Beads None known. Capture Beads None known. Index Primer Mix for ILM None known.

Index Primer Mix for ILM None known.

25-32

17-24

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## 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 Index Primer Mix for ILM Mixture 17-24 Index Primer Mix for ILM Mixture 25-32

#### **CAS** number/other identifiers

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	≥10 - ≤30	25322-68-3
End Prep Buffer		
Magnesium chloride	<2.5	7786-30-3
End Prep Enzyme		
Glycerol	≥30 - ≤60	56-81-5
Ligation Buffer		
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	≥10 - ≤30	25322-68-3
Ligation Enzyme		
Glycerol	≥30 - ≤60	56-81-5
Hyb Buffer		
tetramethylammonium chloride	≥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

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## Section 3. Composition and ingredient information

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	≥10 - ≤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

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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.

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Inhalation

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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. Immediately flush eyes with plenty of water, Hyb Enhancer 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.

Immediately flush eyes with plenty of water, Library Binding Beads occasionally lifting the upper and lower eyelids.

Check for and remove any contact lenses. Get medical attention if irritation occurs.

Capture Beads Immediately flush eyes with plenty of water,

occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

medical attention if irritation occurs.

Index Primer Mix for ILM Immediately flush eyes with plenty of water, 17-24

occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

medical attention if irritation occurs.

Index Primer Mix for ILM Immediately flush eyes with plenty of water, 25-32

occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

medical attention if irritation occurs.

Nuclease-Free Water Remove victim to fresh air and keep at rest in a

position comfortable for breathing. Get medical attention if symptoms occur.

Remove victim to fresh air and keep at rest in a Library Wash Buffer

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.

Remove victim to fresh air and keep at rest in a Hyb Wash Buffer 2 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.

Remove victim to fresh air and keep at rest in a **End Prep Buffer** 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.

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Ligation Buffer Remove victim to fresh air and keep at rest in a

position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept

under medical surveillance for 48 hours.

Ligation Enzyme Remove victim to fresh air and keep at rest in a

position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such

as a collar, tie, belt or waistband.

Adapter for ILM Remove victim to fresh air and keep at rest in a

position comfortable for breathing. Get medical

attention if symptoms occur.

Hyb Blocker Remove victim to fresh air and keep at rest in a

position comfortable for breathing. Get medical

attention if symptoms occur.

Hyb Buffer Remove victim to fresh air and keep at rest in a

position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for

48 hours.

Hyb Enhancer Remove victim to fresh air and keep at rest in a

position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention

immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for

48 hours.

2X Amplification Mastermix Remove victim to fresh air and keep at rest in a

position comfortable for breathing. Get medical

attention if symptoms occur.

Library Binding Beads Remove victim to fresh air and keep at rest in a

position comfortable for breathing. Get medical

attention if symptoms occur.

Capture Beads Remove victim to fresh air and keep at rest in a

position comfortable for breathing. Get medical

attention if symptoms occur.

Index Primer Mix for ILM Remove victim to fresh air and keep at rest in a

17-24 position comfortable for breathing. Get medical

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	Index Primer Mix for ILM 25-32	attention if symptoms occur. 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
	Hyb Wash Buffer 1	medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get
	Hyb Wash Buffer 2	medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get
	Resuspension Buffer	medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	End Prep Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	End Prep Enzyme	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Ligation Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Ligation Enzyme	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Adapter for ILM	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get
	Hyb Blocker	medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get
	Hyb Buffer	medical attention if symptoms occur. 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
	Hyb Enhancer	before reuse. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	2X Amplification Mastermix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Library Binding Beads	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Capture Beads	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Index Primer Mix for ILM 17-24	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

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Index Primer Mix for ILM 25-32

medical attention if symptoms occur.

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.

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. 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

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vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce

vomiting unless directed to do so by medical personnel.

Wash out mouth with water. Remove dentures if any. End Prep Enzyme 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.

Wash out mouth with water. If material has been Ligation Buffer

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. 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

Library Wash Buffer

Hyb Wash Buffer 1

Hyb Wash Buffer 2

Resuspension Buffer

**End Prep Buffer** 

Ligation Enzyme

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Adapter for ILM

Hyb Blocker

Hyb Buffer

Hyb Enhancer

2X Amplification Mastermix

Library Binding Beads

Capture Beads

Index Primer Mix for ILM 17-24

Index Primer Mix for ILM 25-32

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.

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.

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. 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.

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.

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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. Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give

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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 Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32

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.

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

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

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

No known significant effects or critical hazards.

No known significant effects or critical hazards.

**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 known significant effects or critical hazards.

Causes damage to organs following a single exposure in contact with skin. Causes skin irritation.

No known significant effects or critical hazards.

Hyb Enhancer

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2X Amplification Mastermix Library Binding Beads Capture Beads

Index Primer Mix for ILM 17-24

Index Primer Mix for ILM

No known significant effects or critical hazards.

25-32

No known significant effects or critical hazards.

Ingestion

: 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. Harmful if swallowed. Causes damage to organs

following a single exposure if swallowed.

Hvb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads

Index Primer Mix for ILM 17-24

Index Primer Mix for ILM 25-32

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

No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

**Eye contact** 

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

No specific data. No specific data.

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 2X Amplification Mastermix

Library Binding Beads Capture Beads

Index Primer Mix for ILM

Index Primer Mix for ILM

25-32

No specific data. No specific data. No specific data. No specific data.

No specific data.

No specific data.

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Section 4. First aid		
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.
	•	No specific data.
	Hyb Blocker	•
	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.
	Index Primer Mix for ILM	No specific data.
	17-24	·
	Index Primer Mix for ILM	No specific data.
	25-32	'
Skin contact	: Nuclease-Free Water	No aposifio data
Skiii Contact		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:
	Tryb Ermanoor	reduced foetal weight
		increase in foetal deaths
		skeletal malformations
	OV Apprilification Montagen	
	2X Amplification Mastermix	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Index Primer Mix for ILM	No specific data.
	17-24	
	Index Primer Mix for ILM 25-32	No specific data.
Ingestion	: Nuclease-Free Water	No specific data.
•	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Resuspension Buffer	No specific data.
	End Prep Buffer	No specific data.
	End Prep Enzyme	No specific data.
	Ligation Buffer	No specific data.
	Ligation Enzyme	No specific data.
	Adapter for ILM	No specific data.
	Hyb Blocker	No specific data.
	Hyb Buffer	No specific data.
	Hyb Enhancer	Adverse symptoms may include the following:
		reduced foetal weight

increase in foetal deaths

2X Amplification Mastermix Library Binding Beads

Capture Beads Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

skeletal malformations
No specific data.
No specific data.
No specific data.
No specific data.

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.

Hyb Enhancer In case of inhalation of decomposition products in a

fire, symptoms may be delayed. The exposed person may need to be kept under medical

surveillance for 48 hours.

2X Amplification Mastermix Treat symptomatically. Contact poison treatment

specialist immediately if large quantities have been

ingested or inhaled.

Library Binding Beads Treat symptomatically. Contact poison treatment

specialist immediately if large quantities have been

ingested or inhaled.

Capture Beads Treat symptomatically. Contact poison treatment

specialist immediately if large quantities have been

ingested or inhaled.

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

#### **Protection of first-aiders**

No action shall be taken involving any personal risk

No action shall be taken involving any personal risk Hyb Wash Buffer 1

or without suitable training.

No action shall be taken involving any personal risk Hyb Wash Buffer 2

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.

No action shall be taken involving any personal risk Ligation Enzyme

> or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth

resuscitation.

Adapter for ILM No action shall be taken involving any personal risk

or without suitable training.

Hyb Blocker No action shall be taken involving any personal risk

or without suitable training.

Hyb Buffer No action shall be taken involving any personal risk

or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth

resuscitation.

Hyb Enhancer No action shall be taken involving any personal risk

> or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

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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.

Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

No action shall be taken involving any personal risk

or without suitable training.

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.

surrounding fire.

Library Binding Beads

Use an extinguishing agent suitable for the

surrounding fire.

Capture Beads Use an extinguishing agent suitable for the

surrounding fire.

Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

Use an extinguishing agent suitable for the surrounding fire.

Use an extinguishing agent suitable for the

surrounding fire.

Unsuitable extinguishing media

: Nuclease-Free Water None known. Library Wash Buffer None known. Hyb Wash Buffer 1 None known. Hyb Wash Buffer 2 None known. Resuspension Buffer None known. **End Prep Buffer** None known. End Prep Enzyme None known. Ligation Buffer None known. Ligation Enzyme None known. Adapter for ILM None known

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Hyb Blocker None known. Hyb Buffer None known. Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads

Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

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

None known.

#### Specific hazards arising from the chemical

: Nuclease-Free Water In a fire or if heated, a pressure increase will occur

and the container may burst.

Library Wash Buffer In a fire or if heated, a pressure increase will occur

and the container may burst.

Hyb Wash Buffer 1 In a fire or if heated, a pressure increase will occur

and the container may burst.

Hyb Wash Buffer 2 In a fire or if heated, a pressure increase will occur

and the container may burst.

Resuspension Buffer In a fire or if heated, a pressure increase will occur

and the container may burst.

**End Prep Buffer** In a fire or if heated, a pressure increase will occur

and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any

waterway, sewer or drain.

End Prep Enzyme In a fire or if heated, a pressure increase will occur

and the container may burst.

In a fire or if heated, a pressure increase will occur Ligation Buffer

and the container may burst.

In a fire or if heated, a pressure increase will occur Ligation Enzyme

and the container may burst.

In a fire or if heated, a pressure increase will occur Adapter for ILM

and the container may burst.

Hyb Blocker In a fire or if heated, a pressure increase will occur

and the container may burst.

Hyb Buffer In a fire or if heated, a pressure increase will occur

> and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any

waterway, sewer or drain.

Hyb Enhancer In a fire or if heated, a pressure increase will occur

and the container may burst.

2X Amplification Mastermix In a fire or if heated, a pressure increase will occur

and the container may burst.

Library Binding Beads In a fire or if heated, a pressure increase will occur

and the container may burst.

Capture Beads In a fire or if heated, a pressure increase will occur

and the container may burst.

Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

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.

**Hazardous thermal** decomposition products : Nuclease-Free Water Library Wash Buffer

No specific data.

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

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materials:

halogenated compounds

metal oxide/oxides No specific data. No specific data.

Resuspension Buffer End Prep Buffer

Hyb Wash Buffer 2

uffer 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 No specific data. No specific data.

Adapter for ILM Hyb Blocker 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
No specific data.

Capture Beads

Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

No specific data.

No specific data.

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<b>Special</b>	protective actions
for fire-	ighters

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

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 action shall be taken involving any personal risk or

Special protective

equipment for fire-fighters

without suitable training. Index Primer Mix for ILM Promptly isolate the scene by removing all persons 17-24 from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Index Primer Mix for ILM Promptly isolate the scene by removing all persons 25-32 from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or Without suitable training appropriate protective : Nuclease-Free Water 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. Fire-fighters should wear appropriate protective End Prep Enzyme 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 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

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2X Amplification Mastermix

pressure mode.

equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

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

pressure mode.

Library Binding Beads Fire-fighters should wear appropriate protective

equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

Capture Beads Fire-fighters should wear appropriate protective

equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

Index Primer Mix for ILM

17-24

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

pressure mode.

Index Primer Mix for ILM

25-32

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

pressure mode.

#### Section 6. Accidental release measures

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.

No action shall be taken involving any personal risk Hyb Wash Buffer 2

> 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

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respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Ligation Buffer No action shall be taken involving any personal risk

or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal

protective equipment.

Ligation Enzyme No action shall be taken involving any personal risk

or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk

through 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.

Index Primer Mix for ILM No action shall be taken involving any personal risk

17-24 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.

Index Primer Mix for ILM

25-32

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

protective equipment.

For emergency responders : Nuclease-Free Water

Library Wash Buffer

Hyb Wash Buffer 1

Hyb Wash Buffer 2

Resuspension Buffer

End Prep Buffer

End Prep Enzyme

Ligation Buffer

Ligation Enzyme

Adapter for ILM

Hyb Blocker

Hyb Buffer

Hyb Enhancer

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". 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". 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". 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".

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". 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".

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". 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

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suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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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". 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".

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spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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**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,

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).

Avoid dispersal of spilt material and runoff and Resuspension Buffer

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.

Avoid dispersal of spilt material and runoff and **End Prep Enzyme** 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

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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. 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

Hyb Enhancer

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).

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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).

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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

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

disposal contractor.

Library Wash Buffer Stop leak if without risk. Move containers from spill

area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste

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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. 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.

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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.

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

## Section 7. Handling and storage

Precautions for safe handling

**Protective measures** 

: Nuclease-Free Water Put on appropriate personal protective equipment

(see Section 8).

Library Wash Buffer Put on appropriate personal protective equipment

(see Section 8).

Hyb Wash Buffer 1 Put on appropriate personal protective equipment

(see Section 8).

Hyb Wash Buffer 2 Put on appropriate personal protective equipment

(see Section 8).

Resuspension Buffer Put on appropriate personal protective equipment

(see Section 8).

**End Prep Buffer** Put on appropriate personal protective equipment

> (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing 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

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: Nuclease-Free Water

Library Wash Buffer

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Put on appropriate personal protective equipment

(see Section 8).

reuse container.

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).

Put on appropriate personal protective equipment Hyb Blocker

(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.

Put on appropriate personal protective equipment Hyb Enhancer (see Section 8). Avoid exposure - obtain special

instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe 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.

Put on appropriate personal protective equipment

(see Section 8).

Put on appropriate personal protective equipment

(see Section 8).

Put on appropriate personal protective equipment

(see Section 8).

Put on appropriate personal protective equipment

(see Section 8).

Put on appropriate personal protective equipment

(see Section 8).

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.

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

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Hyb 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

**End Prep Buffer** 

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

End Prep Enzyme

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Eating, drinking and smoking should be prohibited in Ligation Enzyme areas where this material is handled, stored and processed. Workers should wash hands and face

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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.

Eating, drinking and smoking should be prohibited in

Ligation Buffer

Adapter for ILM

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Conditions for safe storage, : Nuclease-Free Water

including any incompatibilities

Library Wash Buffer

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

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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. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from

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Hyb Wash Buffer 1

Hyb Wash Buffer 2

Resuspension Buffer

**End Prep Buffer** 

End Prep Enzyme

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. 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. 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. 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. 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. 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.

Store in accordance with local regulations. Store in

Ligation Buffer

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Hyb Buffer

Hyb Enhancer

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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. Store in accordance with local regulations. Store in original container protected from direct sunlight in a

Library Binding Beads

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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.

ix 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.

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## Section 8. Exposure controls and personal protection

#### **Control parameters**

Occupational exposure limits

Ingredient name	Exposure limits
<b>Library Wash Buffer</b> Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	DFG MAC-values list (Germany, 7/2023). PEAK: 400 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction TWA: 200 mg/m³ 8 hours. Form: inhalable fraction
End Prep Enzyme Glycerol	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m³ 8 hours.
Ligation Buffer Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	DFG MAC-values list (Germany, 7/2023).  PEAK: 400 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction  TWA: 200 mg/m³ 8 hours. Form: inhalable fraction
Ligation Enzyme Glycerol	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m³ 8 hours.
<b>Hyb Enhancer</b> Formamide	Safe Work Australia (Australia, 10/2022). Absorbed through skin. TWA: 18 mg/m³ 8 hours.
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	TWA: 10 ppm 8 hours. <b>DFG MAC-values list (Germany, 7/2023).</b> PEAK: 400 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction  TWA: 200 mg/m³ 8 hours. Form: inhalable fraction
2X Amplification Mastermix Glycerol	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m³ 8 hours.
Library Binding Beads Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated  Biological exposure indices	DFG MAC-values list (Germany, 7/2023).  PEAK: 400 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction  TWA: 200 mg/m³ 8 hours. Form: inhalable fraction

#### **Biological exposure indices**

No exposure indices known.

# Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

# **Environmental exposure** controls

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

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## Section 8. Exposure controls and personal protection

#### **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 Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24	Liquid.
	Index Primer Mix for ILM 25-32	Liquid.

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characteristics			
Colour	Nuclease-Free Library Wash Buf Hyb Wash Buf Resuspension End Prep Enzy Ligation Buffer Ligation Enzym Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Library Binding Capture Beads Index Primer March 17-24 Index Primer March 25-32	Buffer New Market New	Colourless. Not available.
Odour	Nuclease-Free Library Wash Buf Hyb Wash Buf Resuspension End Prep Buffe End Prep Enzy Ligation Buffer Ligation Enzyn Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Capture Beads Index Primer Market 17-24 Index Primer Market 15-32	Buffer Ner 1 Ner 2	Odourless. Not available.
Odour threshold	Nuclease-Free Library Wash Buf Hyb Wash Buf Resuspension End Prep Buffe End Prep Enzy Ligation Buffer Ligation Enzym Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Library Binding Capture Beads Index Primer M 17-24 Index Primer M 25 32	Buffer Mer 1 Mer 2 Mer 2 Mer 2 Mer	Not available.

25-32

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pH	:	Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32	7 Not available. 7.2 to 7.6 7.2 to 7.6 8 8 7.5 8 7.5 8 7.5 Not available. Not available. 8 Not available. 8
Melting point/freezing point	:	Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32	0°C (32°F) Not available. 0°C (32°F) 0°C (32°F) 0°C (32°F) Not available. Not available. Not available. O°C (32°F) 0°C (32°F) Not available. O°C (32°F) 0°C (32°F)
Boiling point, initial boiling point, and boiling range	:	Nuclease-Free Water Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Resuspension Buffer End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer 2X Amplification Mastermix Library Binding Beads Capture Beads Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32	100°C (212°F) Not available. 100°C (212°F) 100°C (212°F) 100°C (212°F) Not available. Not available. Not available. Not available. 100°C (212°F) 100°C (212°F) Not available. 100°C (212°F)
Flash point	:		

	Closed cup				Open o	up
Ingredient name	°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	-

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Ev/2	no	rat	ion	rate
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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. Not available. End Prep Enzyme Ligation Buffer Not available. Ligation Enzyme Not available. Adapter for ILM Not available. Hvb Blocker Not available. Hvb Buffer Not available. Hyb Enhancer Not available. 2X Amplification Mastermix Not available. Library Binding Beads Not available. Capture Beads Not available. Index Primer Mix for ILM Not available. 17-24 Index Primer Mix for ILM Not available.

17-24

Index Primer Mix for ILM

25-32

#### **Flammability**

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

Lower and upper explosion limit/flammability limit

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

Index Primer Mix for ILM

25-32

Not applicable.

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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)]

	Vapou		re at 20°C	Vapour pressure at 50°C		
Ingredient name	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	-

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	1	1	T	ı		Г
Hyb Blocker	17.5	2.3	_	92.258	12.3	_
water	17.5	2.5		92.230	12.0	_
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	0.000003	0.00000004	-	-	-	-
Capture Beads						
water	17.5	2.3	-	92.258	12.3	-
Index Primer Mix for ILM 17-24						
water	17.5	2.3	-	92.258	12.3	-
Index Primer Mix for ILM 25-32						
water	17.5	2.3	-	92.258	12.3	-

onar actor iotico		
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.
	Hyb Enhancer	Not available.
	2X Amplification Mastermix	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Index Primer Mix for ILM 17-24	Not available.
	Index Primer Mix for ILM 25-32	Not available.
Relative density	: Nuclease-Free Water	1
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	Not available.
	Resuspension Buffer	Not available.
	End Prep Buffer	Not available.
	End Prep Enzyme	Not available.
	Ligation Buffer	Not available.
	Ligation Enzyme	Not available.
	Adapter for ILM	Not available.
	Hyb Blocker	Not available.
	Hyb Buffer	Not available.
	Hyb Enhancer	Not available.
	2X Amplification Mastermix	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Index Primer Mix for ILM 17-24	Not available.
	Index Primer Mix for ILM 25-32	Not available.
Solubility(ies)	: Media	Result
	Nuclease-Free Water	
	water	Soluble
	Library Wash Buffer	Coldato
	water	Soluble
	Hyb Wash Buffer 1	Colubio
	water	Soluble
	Hyb Wash Buffer 2	Colubic
	water	Soluble
	Resuspension Buffer	Coldina
	water	Soluble
	End Prep Buffer	Colubie
	water	Soluble
	End Prep Enzyme	Coldina
	water	Salubla

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water

water

water

Ligation Buffer

Ligation Enzyme

Adapter for ILM

Soluble

Soluble

Soluble

water	Soluble
Hyb Blocker	
water	Soluble
Hyb Buffer	
water	Soluble
Hyb Enhancer	
water	Soluble
Library Binding Beads	
water	Soluble
Capture Beads	
water	Soluble
Index Primer Mix for ILM 17-24	
water	Soluble
Index Primer Mix for ILM 25-32	
water	Soluble

#### Partition coefficient: noctanol/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. Not applicable. End Prep Enzyme Ligation Buffer Not applicable. Not applicable. Ligation Enzyme Adapter for ILM Not applicable. Not applicable. Hyb Blocker Hyb Buffer Not applicable. Hyb Enhancer Not applicable. 2X Amplification Mastermix Not applicable. Library Binding Beads Not applicable. Capture Beads Not applicable. Index Primer Mix for ILM Not applicable. 17-24 Index Primer Mix for ILM Not applicable. 25-32

#### **Auto-ignition temperature**

Ingredient na	ıme	°C	°F	Method
Library Wash	Buffer			
Poly(oxy-1,2-e hydro-ω-hydro 1,2-diol, ethox	oxy- Ethane-	360	680	-
End Prep En	zyme			
Glycerol		370	698	-
Ligation Buff	er			
Poly(oxy-1,2-e hydro-ω-hydro 1,2-diol, ethox	oxy- Ethane-	360	680	-
Ligation Enz	yme			
Glycerol		370	698	-
Hyb Enhance	er			

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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	-

#### **Decomposition temperature**

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

25-32

25-32

#### **Particle characteristics**

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Median particle size

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

### 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.

Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

No specific test data related to reactivity available for

this product or its ingredients.

No specific test data related to reactivity available for

this product or its ingredients.

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17-24

25-32

Index Primer Mix for ILM

## Section 10. Stability and reactivity

#### **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. The product is stable. Capture Beads Index Primer Mix for ILM The product is stable.

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. 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. Under normal conditions of storage and use, End Prep Enzyme hazardous reactions will not occur. Under normal conditions of storage and use, Ligation Buffer hazardous reactions will not occur. Under normal conditions of storage and use, Ligation Enzyme 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. Under normal conditions of storage and use, 2X Amplification Mastermix hazardous reactions will not occur. Under normal conditions of storage and use, Library Binding Beads hazardous reactions will not occur. Capture Beads Under normal conditions of storage and use, hazardous reactions will not occur. Index Primer Mix for ILM Under normal conditions of storage and use, 17-24 hazardous reactions will not occur. Index Primer Mix for ILM Under normal conditions of storage and use, 25-32 hazardous reactions will not occur.

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## Section 10. Stability and reactivity

#### **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. Index Primer Mix for ILM No specific data. 17-24

Index Primer Mix for ILM 25-32

No specific data.

#### Incompatible materials

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

Nuclease-Free Water

May react or be incompatible with oxidising materials. 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

May react or be incompatible with oxidising materials.

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.

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## Section 10. Stability and reactivity

Ligation Buffer Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, Ligation Enzyme 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. Under normal conditions of storage and use, Hyb Buffer hazardous decomposition products should not be produced. Hyb Enhancer Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, 2X Amplification Mastermix hazardous decomposition products should not be produced. Library Binding Beads Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, Capture Beads hazardous decomposition products should not be produced. Index Primer Mix for ILM Under normal conditions of storage and use, 17-24 hazardous decomposition products should not be produced. Index Primer Mix for ILM Under normal conditions of storage and use, 25-32 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 Rat	>2000 mg/kg 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 LD50 Oral	Rabbit - Male, Female Rat	200 to 500 mg/ kg 50 mg/kg	-
<b>Hyb Enhancer</b> Formamide	LC50 Inhalation Dusts and mists LD50 Dermal LD50 Oral	Rat - Male Rabbit Rat	>21 mg/l 17 g/kg 5570 mg/kg	4 hours -
2X Amplification Mastermix				

## Section 11. Toxicological information

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	-
T, Z dioi, outlookylated	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rabbit	-	500 mg 24 hours 500	-
	Skin - Mild irritant	Rabbit	-	mg 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 Skin - Mild irritant	Rabbit Rabbit	-	500 mg 24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
<b>Ligation Enzyme</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Hyb Enhancer Poly(oxy-1,2-ethanediyl),α- hydro-ω-hydroxy- Ethane- 1,2-diol, ethoxylated	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
1,2 dioi, curoxylated	Eyes - Mild irritant Skin - Mild irritant	Rabbit Rabbit	-	500 mg 24 hours 500	-
			_	mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
2X Amplification Mastermix					
Glycerol	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 Skin - Mild irritant	Rabbit Rabbit	-	500 mg 24 hours 500	-
	Skin - Mild irritant	Rabbit	-	mg 500 mg	-

**Sensitisation** 

Not available.

#### **Mutagenicity**

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**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		central nervous system (CNS)

#### Specific target organ toxicity (repeated exposure)

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

#### **Aspiration hazard**

Not available.

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,

Eves.

Ligation Buffer Not available.

Ligation Enzyme Routes of entry anticipated: Oral, Dermal, Inhalation,

Adapter for ILM Routes of entry anticipated: Oral, Dermal, Inhalation,

Eves.

Not available. Hyb Blocker

Hyb Buffer Routes of entry anticipated: Oral, Dermal, Inhalation,

Eyes.

Hyb Enhancer Routes of entry anticipated: Oral, Dermal, Inhalation,

Eyes.

2X Amplification Mastermix Library Binding Beads

Capture Beads

Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

Not available. Not available. Not available.

Not available.

Not available.

#### Potential acute health effects

**Eye contact** 

: Nuclease-Free Water No known significant effects or critical hazards. No known significant effects or critical hazards. Library Wash Buffer 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.

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

Causes eye irritation.

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

No known significant effects or critical hazards.

#### Inhalation

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

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

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

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

.M No known significant effects or critical hazards.

#### Skin contact

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

Causes damage to organs following a single exposure in contact with skin. Causes skin irritation.

No known significant effects or critical hazards.

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

No known significant effects or critical hazards.

#### Ingestion

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

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Adapter for ILM

No known significant effects or critical hazards.

Hyb Blocker

No known significant effects or critical hazards.

Hyb Buffer

Harmful if swallowed. Causes damage to organs

following a single exposure if swallowed.

Hyb Enhancer 2X Amplification Mastermix Library Binding Beads

Capture Beads Index Primer Mix for ILM

17-24

Index Primer Mix for ILM

25-32

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

No known significant effects or critical hazards.

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

**Eye contact** 

Nuclease-Free Water
 Library Wash Buffer
 Hyb Wash Buffer 1
 Hyb Wash Buffer 2
 Resuspension Buffer
 End Prep Buffer
 No specific data.
 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
2X Amplification Mastermix
Library Binding Beads
Capture Beads
No specific data.
No specific data.
No specific data.
No specific data.

Index Primer Mix for ILM

17-24

Index Primer Mix for ILM No

25-32

No specific data.

No specific data.

Inhalation

No specific data. Nuclease-Free Water 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
Library Binding Beads
Capture Beads
Index Primer Mix for ILM
No specific data.
No specific data.
No specific data.
No specific data.

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Index Primer Mix for ILM

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Skin contact

No specific data.

: Nuclease-Free Water No specific data. Library Wash Buffer No specific data. No specific data. Hyb Wash Buffer 1 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. Index Primer Mix for ILM No specific data.

17-24

Index Primer Mix for ILM No specific data.

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: 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. No specific data. End Prep Enzyme No specific data. Ligation Buffer No specific data. Ligation Enzyme Adapter for ILM No specific data. Hyb Blocker No specific data. Hyb Buffer No specific data.

Hyb Enhancer Adverse symptoms may include the following:

No specific data.

reduced foetal weight increase in foetal deaths skeletal malformations No specific data.

2X Amplification Mastermix Library Binding Beads Capture Beads

No specific data. Index Primer Mix for ILM No specific data. 17-24

Index Primer Mix for ILM

No specific data.

25-32

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

**Short term exposure** 

**Potential immediate** : Not available.

effects

Ingestion

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

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#### Potential chronic health effects

#### General

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

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

Carcinogenicity

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 Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32

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

Index Primer Mix for ILM

25-32

No known significant effects or critical hazards. May cause damage to organs through prolonged or repeated exposure.

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. Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. 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. No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

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#### 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 Index Primer Mix for ILM 17-24 Index Primer Mix for ILM 25-32

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.

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
<b>Ligation Buffer</b> 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 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 Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	5570 28000	17000 N/A	N/A N/A	N/A N/A	N/A N/A
2X Amplification Mastermix Glycerol	12600	N/A	N/A	N/A	N/A
<b>Library Binding Beads</b> Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy-Ethane-1,2-diol, ethoxylated	28000	N/A	N/A	N/A	N/A

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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
1,2 dioi, outoxylatou	Acute LC50 >1000000 μg/l Fresh water	Fish - <i>Salmo salar</i> - Parr	96 hours
End Prep Buffer			
Magnesium chloride	Acute EC50 >100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 180000 μg/l Fresh water	Crustaceans - Eudiaptomus padanus ssp. padanus - Adult	48 hours
	Acute IC50 6.8 mg/l Fresh water	Aquatic plants - Lemna aequinoctialis	96 hours
	Acute LC50 32000 μg/l Fresh water	Daphnia - <i>Daphnia hyalina</i> - Adult	48 hours
	Acute LC50 2120 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute NOEC 100 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Chronic NOEC 0.1 mg/l Fresh water	Fish - Cyprinus carpio	35 days
End Prep Enzyme			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
<b>Ligation Buffer</b> Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-	Acute EC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
1,2-diol, ethoxylated	Acute LC50 >1000000 μg/l Fresh water	Fish - <i>Salmo salar</i> - Parr	96 hours
<b>Ligation Enzyme</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Hyb Buffer tetramethylammonium chloride	Acute LC50 462 mg/l Fresh water	Fish - Pimephales promelas	96 hours
Hyb Enhancer			
Formamide	Acute EC50 >500 mg/l Fresh water	Algae	72 hours
	Acute EC50 >500 mg/l Fresh water	Daphnia	48 hours 96 hours
	Acute LC50 6569 mg/l Fresh water Acute NOEC 4640 mg/l Fresh water	Fish Algae	72 hours
	Acute NOEC 4640 mg/l Fresh water	Fish	96 hours
Poly(oxy-1,2-ethanediyl),α- hydro-ω-hydroxy- Ethane-	Acute EC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
1,2-diol, ethoxylated	Acute LC50 >1000000 μg/l Fresh water	Fish - <i>Salmo salar</i> - Parr	96 hours
2X Amplification Mastermix Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Library Binding Beads			
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## Section 12. Ecological information

Poly(oxy-1,2-ethanediyl),α-	Acute EC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
hydro-ω-hydroxy- Ethane-	_		
1,2-diol, ethoxylated			
-	Acute LC50 >1000000 μg/l Fresh water	Fish - <i>Salmo salar</i> - Parr	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	-	-
<b>Hyb Enhancer</b> Formamide	OECD 301A Ready Biodegradability - DOC Die-Away	99 % - Readily - 28 days	-	-
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	Test OECD 301D Ready Biodegradability - Closed Bottle Test	74.85 % - Readily - 28 days	4 mg/l	-
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	-

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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 Poly(oxy-1,2-ethanediyl),α- hydro-ω-hydroxy- Ethane- 1,2-diol, ethoxylated	- -	-	Readily Readily
Library Binding Beads Poly(oxy-1,2-ethanediyl),α- hydro-ω-hydroxy- Ethane- 1,2-diol, ethoxylated	-	-	Readily

#### **Bioaccumulative potential**

Product/ingredient name	LogPow	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
Ligation Enzyme Glycerol	-1.76	-	Low
Hyb Buffer tetramethylammonium chloride	<-1.6	-	Low
Hyb Enhancer Formamide Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	-0.82 -	3.2	Low Low
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## Section 12. Ecological information

2X Amplification Mastermix Glycerol	-1.76	-	Low
<b>Library Binding Beads</b> Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	-	3.2	Low

**Mobility in soil** 

Soil/water partition coefficient (Koc)

: 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: Not available.

to IMO instruments

## 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.

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### Section 15. Regulatory information

#### **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** 

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

✓ Indicates information that has changed from previously issued version.

**Notice to reader** 

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## **Section 16. Any other relevant information**

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