

SAFETY DATA SHEET



Avida Methyl Reagent Kit with 97-192 Index Primer Pairs for ILM, 96 Reactions, Part Number G9429B

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : Avida Methyl Reagent Kit with 97-192 Index Primer Pairs for ILM, 96 Reactions, Part Number G9429B

UK (GB) REACH Registration number

Registration number	Legal entity
<p>Nuclease-Free Water Exempt from REACH: According to the provisions of Article 2(7)(a) and Annex IV of REACH</p>	-

CAS number :

Nuclease-Free Water	7732-18-5
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.
Soft Conversion Reagent A	Not applicable.
2X Methyl Amplification Mastermix	Not applicable.
Library Wash Buffer	Not applicable.
Hyb Wash Buffer 1	Not applicable.
Hyb Wash Buffer 2	Not applicable.
Soft Conversion Reagent B	Not applicable.
Soft Conversion Binding Beads	Not applicable.
5X Soft Conversion Wash Buffer	Not applicable.
Soft Conversion Elution Buffer	Not applicable.
Soft Conversion Repair Solution	Not applicable.
Library Binding Beads	Not applicable.
Capture Beads	Not applicable.
Avida Index Primer Pairs 97-192 for ILM	Not applicable.

Part no. (chemical kit) : G9429B

Part no. :

<u>Avida Methyl Reagent Box 2, 96 Reactions/</u>	<u>5282-0148/5282-0150</u>
<u>Avida Methyl and Duo Reagent Box 3, 96 Reactions</u>	
Nuclease-Free Water	5271-0134
<u>Avida Methyl Reagent Box 1, 96 Reactions</u>	<u>5282-0146</u>
End Prep Buffer	5271-0121
End Prep Enzyme	5271-0122
Ligation Buffer	5271-0123
Ligation Enzyme	5271-0124
Adapter for ILM	5271-0139
Hyb Blocker	5271-0126
Hyb Buffer	5271-0127
Hyb Enhancer	5271-0128
Soft Conversion Reagent A	5271-0137
2X Methyl Amplification Mastermix	5271-0138
<u>Avida Methyl Reagent Box 2, 96 Reactions</u>	<u>5282-0148</u>
Library Wash Buffer	5271-0130

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Hyb Wash Buffer 1	5271-0131
Hyb Wash Buffer 2	5271-0132
<u>Avida Methyl and Duo Reagent Box 3, 96 Reactions</u>	<u>5282-0150</u>
<u>Soft Conversion Reagent B</u>	<u>5271-0113</u>
Soft Conversion Binding Beads	5271-0141
5X Soft Conversion Wash Buffer	5271-0142
Soft Conversion Elution Buffer	5271-0143
Soft Conversion Repair Solution	5271-0144
<u>Avida Beads Box, 96 Reactions</u>	<u>5282-0144</u>
Library Binding Beads	5271-0135
Capture Beads	5271-0136
<u>Avida Index Primer Pairs 97 -192 for ILM</u>	<u>5280-0056</u>
Avida Index Primer Pairs 97-192 for ILM	5274-0080

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

Identified uses	: Analytical reagent. For research use only.
	Nuclease-Free Water 5.76 ml (96 reactions)
	End Prep Buffer 0.877 ml (96 reactions)
	End Prep Enzyme 0.351 ml (96 reactions)
	Ligation Buffer 2.960 ml (96 reactions)
	Ligation Enzyme 0.694 ml (96 reactions)
	Adapter for ILM 0.588 ml (96 reactions)
	Hyb Blocker 0.349 ml (96 reactions)
	Hyb Buffer 5.524 ml (96 reactions)
	Hyb Enhancer 0.988 ml (96 reactions)
	Soft Conversion Reagent A 0.387 ml (96 reactions)
	2X Methyl Amplification Mastermix 2.940 ml (96 reactions)
	Library Wash Buffer 21.12 ml (96 reactions)
	Hyb Wash Buffer 1 31.680 ml (96 reactions)
	Hyb Wash Buffer 2 18.24 ml (96 reactions)
	Soft Conversion Reagent B 6 x 0.750 ml
	Soft Conversion Binding Beads 17.280 ml (96 reactions)
	5X Soft Conversion Wash Buffer 8 ml (96 reactions)
	Soft Conversion Elution Buffer 1.728 ml (96 reactions)
	Soft Conversion Repair Solution 0.588 ml (96 reactions)
	Library Binding Beads 10.083 ml (96 reactions)
	Capture Beads 0.944 ml (96 reactions)
	Avida Index Primer Pairs 97-192 for ILM 96 x 0.005 ml
Uses advised against	: Not for use in diagnostic procedures.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.
5500 Lakeside Cheadle Royal Business Park,
Cheadle, Cheshire, SK8 3GR
United Kingdom
Tel: +44 (0) 345 712 5292

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition	:	Nuclease-Free Water	Mono-constituent substance
		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
		Soft Conversion	Mixture
		Reagent A	
		2X Methyl Amplification	Mixture
		Mastermix	
		Library Wash Buffer	Mixture
		Hyb Wash Buffer 1	Mixture
		Hyb Wash Buffer 2	Mixture
		Soft Conversion	Mixture
		Reagent B	
		Soft Conversion Binding	Mixture
		Beads	
		5X Soft Conversion	Mixture
		Wash Buffer	
		Soft Conversion Elution	Mixture
		Buffer	
		Soft Conversion Repair	Mixture
		Solution	
		Library Binding Beads	Mixture
		Capture Beads	Mixture
		Avida Index Primer Pairs	Mixture
		97-192 for ILM	

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

End Prep Buffer			
H412	LONG-TERM (CHRONIC) AQUATIC HAZARD		Category 3
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 1B
H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE		Category 2
Soft Conversion			
Reagent A			
H319	SERIOUS EYE DAMAGE/EYE IRRITATION		Category 2
H360FD	REPRODUCTIVE TOXICITY		Category 1B
Soft Conversion			
Reagent B			
H319	SERIOUS EYE DAMAGE/EYE IRRITATION		Category 2
Soft Conversion			
Binding Beads			
H226	FLAMMABLE LIQUIDS		Category 3
H314	SKIN CORROSION/IRRITATION		Category 1C
H400	SHORT-TERM (ACUTE) AQUATIC HAZARD		Category 1
H411	LONG-TERM (CHRONIC) AQUATIC HAZARD		Category 2

SECTION 2: Hazards identification

Soft Conversion

Elution Buffer

H314

SKIN CORROSION/IRRITATION

Category 1

Nuclease-Free Water

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

End Prep Buffer

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

End Prep Enzyme

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Ligation Buffer

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Ligation Enzyme

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Adapter for ILM

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Hyb Blocker

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Hyb Buffer

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Hyb Enhancer

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Soft Conversion Reagent A

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

2X Methyl Amplification Mastermix

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Library Wash Buffer

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Hyb Wash Buffer 1

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Hyb Wash Buffer 2

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Soft Conversion Reagent B

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Soft Conversion Binding Beads

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

5X Soft Conversion Wash Buffer

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Soft Conversion Elution Buffer

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Soft Conversion Repair Solution

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Library Binding Beads

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Capture Beads

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Avida Index Primer Pairs 97-192 for ILM

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Ingredients of unknown toxicity

: End Prep Buffer

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%

End Prep Enzyme

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%

Ligation Buffer

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%

Ligation Enzyme

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%

Hyb Buffer

Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%

SECTION 2: Hazards identification

Hyb Enhancer	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
Soft Conversion Reagent A	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: > 60%
2X Methyl Amplification Mastermix	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: > 60%
	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%
Library Wash Buffer	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
Hyb Wash Buffer 1	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
Soft Conversion Reagent B	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: > 60%
	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: > 60%
	Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: > 60%
Soft Conversion Binding Beads	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
Soft Conversion Repair Solution	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
Library Binding Beads	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%
Ingredients of unknown ecotoxicity	
: Hyb Buffer	Contains 3.4% of components with unknown hazards to the aquatic environment
2X Methyl Amplification Mastermix	Contains 10% of components with unknown hazards to the aquatic environment
Soft Conversion Reagent B	Contains 70% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms : Hyb Buffer



Hyb Enhancer



Soft Conversion Reagent A



Soft Conversion Reagent B



Soft Conversion Binding Beads



Soft Conversion Elution Buffer



Signal word

Nuclease-Free Water	No signal word.
End Prep Buffer	No signal word.
End Prep Enzyme	No signal word.
Ligation Buffer	No signal word.
Ligation Enzyme	No signal word.
Adapter for ILM	No signal word.
Hyb Blocker	No signal word.
Hyb Buffer	Danger
Hyb Enhancer	Danger
Soft Conversion Reagent A	Danger
2X Methyl Amplification Mastermix	No signal word.
Library Wash Buffer	No signal word.
Hyb Wash Buffer 1	No signal word.
Hyb Wash Buffer 2	No signal word.
Soft Conversion Reagent B	Warning
Soft Conversion Binding Beads	Danger
5X Soft Conversion Wash Buffer	No signal word.
Soft Conversion Elution Buffer	Danger
Soft Conversion Repair Solution	No signal word.
Library Binding Beads	No signal word.
Capture Beads	No signal word.
Avida Index Primer Pairs 97-192 for ILM	No signal word.

SECTION 2: Hazards identification

Hazard statements	:	Nuclease-Free Water End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer	No known significant effects or critical hazards. H412 - Harmful to aquatic life with long lasting effects. 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. H302 - Harmful if swallowed. H315 - Causes skin irritation. H370 - Causes damage to organs. 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. H319 - Causes serious eye irritation.
		Hyb Enhancer	H360FD - May damage fertility. May damage the unborn child. No known significant effects or critical hazards.
		Soft Conversion Reagent A	H360FD - May damage fertility. May damage the unborn child. No known significant effects or critical hazards.
		2X Methyl Amplification Mastermix	No known significant effects or critical hazards.
		Library Wash Buffer	No known significant effects or critical hazards.
		Hyb Wash Buffer 1	No known significant effects or critical hazards.
		Hyb Wash Buffer 2	No known significant effects or critical hazards.
		Soft Conversion Reagent B	H319 - Causes serious eye irritation.
		Soft Conversion Binding Beads	H226 - Flammable liquid and vapour. H314 - Causes severe skin burns and eye damage. H410 - Very toxic to aquatic life with long lasting effects.
		5X Soft Conversion Wash Buffer	No known significant effects or critical hazards.
		Soft Conversion Elution Buffer	H314 - Causes severe skin burns and eye damage.
		Soft Conversion Repair Solution	No known significant effects or critical hazards.
		Library Binding Beads	No known significant effects or critical hazards.
		Capture Beads	No known significant effects or critical hazards.
		Avida Index Primer Pairs 97-192 for ILM	No known significant effects or critical hazards.

Precautionary statements

Prevention	:	Nuclease-Free Water End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer	Not applicable. P273 - Avoid release to the environment. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P280 - Wear protective gloves. P273 - Avoid release to the environment. P260 - Do not breathe vapour. P270 - Do not eat, drink or smoke when using this product.
		Hyb Enhancer	P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection. P260 - Do not breathe vapour.
		Soft Conversion Reagent A	P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection.
		2X Methyl Amplification Mastermix	Not applicable.
		Library Wash Buffer	Not applicable.
		Hyb Wash Buffer 1	Not applicable.

SECTION 2: Hazards identification

Response

Hyb Wash Buffer 2	Not applicable.
Soft Conversion Reagent B	P280 - Wear eye or face protection.
Soft Conversion Binding Beads	P280 - Wear protective gloves, protective clothing and eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment.
5X Soft Conversion Wash Buffer	Not applicable.
Soft Conversion Elution Buffer	P280 - Wear protective gloves, protective clothing and eye or face protection.
Soft Conversion Repair Solution	Not applicable.
Library Binding Beads	Not applicable.
Capture Beads	Not applicable.
Avida Index Primer Pairs 97-192 for ILM	Not applicable.
: Nuclease-Free Water	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	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.
Soft Conversion Reagent A	P308 + P313 - IF exposed or concerned: Get medical advice or attention. 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.
2X Methyl Amplification Mastermix	Not applicable.
Library Wash Buffer	Not applicable.
Hyb Wash Buffer 1	Not applicable.
Hyb Wash Buffer 2	Not applicable.
Soft Conversion Reagent B	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.
Soft Conversion Binding Beads	P391 - Collect spillage. P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor.
5X Soft Conversion Wash Buffer	Not applicable.
Soft Conversion Elution Buffer	P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor.
Soft Conversion Repair Solution	Not applicable.
Library Binding Beads	Not applicable.
Capture Beads	Not applicable.
Avida Index Primer Pairs	Not applicable.

SECTION 2: Hazards identification

	97-192 for ILM	
Storage	: Nuclease-Free Water	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.
	Soft Conversion	Not applicable.
	Reagent A	
	2X Methyl Amplification	Not applicable.
	Mastermix	
	Library Wash Buffer	Not applicable.
	Hyb Wash Buffer 1	Not applicable.
	Hyb Wash Buffer 2	Not applicable.
	Soft Conversion	Not applicable.
	Reagent B	
	Soft Conversion Binding	Not applicable.
	Beads	
	5X Soft Conversion	Not applicable.
	Wash Buffer	
	Soft Conversion Elution	Not applicable.
	Buffer	
	Soft Conversion Repair	Not applicable.
	Solution	
	Library Binding Beads	Not applicable.
	Capture Beads	Not applicable.
	Avida Index Primer Pairs	Not applicable.
	97-192 for ILM	
Disposal	: Nuclease-Free Water	Not applicable.
	End Prep Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	End Prep Enzyme	Not applicable.
	Ligation Buffer	Not applicable.
	Ligation Enzyme	Not applicable.
	Adapter for ILM	Not applicable.
	Hyb Blocker	Not applicable.
	Hyb Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Hyb Enhancer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Soft Conversion	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Reagent A	
	2X Methyl Amplification	Not applicable.
	Mastermix	
	Library Wash Buffer	Not applicable.
	Hyb Wash Buffer 1	Not applicable.
	Hyb Wash Buffer 2	Not applicable.
	Soft Conversion	Not applicable.
	Reagent B	
	Soft Conversion Binding	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Beads	
	5X Soft Conversion	Not applicable.
	Wash Buffer	
	Soft Conversion Elution	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Buffer	
	Soft Conversion Repair	Not applicable.
	Solution	
	Library Binding Beads	Not applicable.
	Capture Beads	Not applicable.
	Avida Index Primer Pairs	Not applicable.

SECTION 2: Hazards identification

		97-192 for ILM	
Hazardous ingredients	:	Hyb Buffer	tetramethylammonium chloride
		Hyb Enhancer	formamide
		Soft Conversion	tetrahydro-2-furyl-methanol
		Reagent A	
		Soft Conversion Binding	salts of thiocyanic acid and Poly(oxy-1,2-ethanediyl), .alpha.-[
		Beads	(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-
Supplemental label elements	:	<input checked="" type="checkbox"/> Nuclease-Free Water	Not applicable.
		End Prep Buffer	Not applicable.
		End Prep Enzyme	Safety data sheet available on request.
		Ligation Buffer	Not applicable.
		Ligation Enzyme	Safety data sheet available on request.
		Adapter for ILM	Not applicable.
		Hyb Blocker	Not applicable.
		Hyb Buffer	Not applicable.
		Hyb Enhancer	Not applicable.
		Soft Conversion	Not applicable.
		Reagent A	
		2X Methyl Amplification	Not applicable.
		Mastermix	
		Library Wash Buffer	Not applicable.
		Hyb Wash Buffer 1	Not applicable.
		Hyb Wash Buffer 2	Not applicable.
		Soft Conversion	Not applicable.
		Reagent B	
		Soft Conversion Binding	Corrosive to the respiratory tract.
		Beads	
		5X Soft Conversion	Not applicable.
		Wash Buffer	
		Soft Conversion Elution	Not applicable.
		Buffer	
		Soft Conversion Repair	Not applicable.
		Solution	
		Library Binding Beads	Not applicable.
		Capture Beads	Not applicable.
		Avida Index Primer Pairs	Not applicable.
		97-192 for ILM	
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Nuclease-Free Water	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	Restricted to professional users.
		Soft Conversion	Restricted to professional users.
		Reagent A	
		2X Methyl Amplification	Not applicable.
		Mastermix	
		Library Wash Buffer	Not applicable.
		Hyb Wash Buffer 1	Not applicable.
		Hyb Wash Buffer 2	Not applicable.
		Soft Conversion	Not applicable.
		Reagent B	
		Soft Conversion Binding	Not applicable.
		Beads	
		5X Soft Conversion	Not applicable.
		Wash Buffer	
		Soft Conversion Elution	Not applicable.
		Buffer	
		Soft Conversion Repair	Not applicable.
		Solution	

SECTION 2: Hazards identification

Library Binding Beads	Not applicable.
Capture Beads	Not applicable.
Avida Index Primer Pairs 97-192 for ILM	Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings	:	Nuclease-Free Water	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.	
		Soft Conversion Reagent A	Not applicable.	
		2X Methyl Amplification Mastermix	Not applicable.	
		Library Wash Buffer	Not applicable.	
		Hyb Wash Buffer 1	Not applicable.	
		Hyb Wash Buffer 2	Not applicable.	
		Soft Conversion Reagent B	Not applicable.	
		Soft Conversion Binding Beads	Not applicable.	
		5X Soft Conversion Wash Buffer	Not applicable.	
		Soft Conversion Elution Buffer	Not applicable.	
		Soft Conversion Repair Solution	Not applicable.	
		Library Binding Beads	Not applicable.	
		Capture Beads	Not applicable.	
		Avida Index Primer Pairs 97-192 for ILM	Not applicable.	
	Tactile warning of danger	:	Nuclease-Free Water	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.	
		Soft Conversion Reagent A	Not applicable.	
		2X Methyl Amplification Mastermix	Not applicable.	
		Library Wash Buffer	Not applicable.	
		Hyb Wash Buffer 1	Not applicable.	
		Hyb Wash Buffer 2	Not applicable.	
		Soft Conversion Reagent B	Not applicable.	
		Soft Conversion Binding Beads	Not applicable.	
		5X Soft Conversion Wash Buffer	Not applicable.	
		Soft Conversion Elution Buffer	Not applicable.	
		Soft Conversion Repair Solution	Not applicable.	
		Library Binding Beads	Not applicable.	
		Capture Beads	Not applicable.	

SECTION 2: Hazards identification

Avida Index Primer Pairs 97-192 for ILM Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

PBT	P	B	T	vPvB	vP	vB
Nuclease-Free Water						
Not applicable (Inorganic)	N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A

End Prep Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
End Prep Enzyme	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Ligation Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Ligation Enzyme	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Adapter for ILM	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Hyb Blocker	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Hyb Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Hyb Enhancer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Soft Conversion Reagent A	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
2X Methyl Amplification Mastermix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Library Wash Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Hyb Wash Buffer 1	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Hyb Wash Buffer 2	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Soft Conversion Reagent B	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Soft Conversion Binding Beads	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
5X Soft Conversion Wash Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Soft Conversion Elution Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Soft Conversion Repair Solution	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Library Binding Beads	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Capture Beads	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Avida Index Primer Pairs 97-192 for ILM	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

Nuclease-Free Water	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.
Soft Conversion	None known.

SECTION 2: Hazards identification

Reagent A
 2X Methyl Amplification None known.
 Mastermix
 Library Wash Buffer None known.
 Hyb Wash Buffer 1 None known.
 Hyb Wash Buffer 2 None known.
 Soft Conversion None known.
 Reagent B
 Soft Conversion Binding Causes digestive tract burns.
 Beads
 5X Soft Conversion None known.
 Wash Buffer
 Soft Conversion Elution None known.
 Buffer
 Soft Conversion Repair None known.
 Solution
 Library Binding Beads None known.
 Capture Beads None known.
 Avida Index Primer Pairs None known.
 97-192 for ILM

Substances identified as having endocrine disruptor properties

Ingredient name	Impact
Soft Conversion Binding Beads Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Environment

SECTION 3: Composition/information on ingredients

3.1 Substances

- Nuclease-Free Water Mono-constituent substance
- 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
- Soft Conversion Reagent A Mixture
- 2X Methyl Amplification Mastermix Mixture
- Library Wash Buffer Mixture
- Hyb Wash Buffer 1 Mixture
- Hyb Wash Buffer 2 Mixture
- Soft Conversion Reagent B Mixture
- Soft Conversion Binding Beads Mixture
- 5X Soft Conversion Wash Buffer Mixture
- Soft Conversion Elution Buffer Mixture
- Soft Conversion Repair Solution Mixture
- Library Binding Beads Mixture
- Capture Beads Mixture
- Avida Index Primer Pairs 97-192 for ILM Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Nuclease-Free Water water	UK (GB) REACH #: Annex IV REACH #: Annex IV EC: 231-791-2 CAS: 7732-18-5	100	Not classified.	[1]
End Prep Buffer Magnesium chloride	EC: 232-094-6 CAS: 7786-30-3	<2.5	Aquatic Chronic 1, H410 (M=1)	[1]

SECTION 3: Composition/information on ingredients

End Prep Enzyme Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[1]
Ligation Enzyme Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[1]
Hyb Buffer tetramethylammonium chloride	EC: 200-880-8 CAS: 75-57-0	≥10 - <15	Acute Tox. 2, H300 Acute Tox. 3, H311 Skin Irrit. 2, H315 STOT SE 1, H370 (central nervous system (CNS)) (oral) Aquatic Chronic 2, H411	[1]
Dextran sulfate sodium	CAS: 9011-18-1	≤3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	CAS: 9036-19-5	<0.1	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	[1] [2]
Hyb Enhancer Formamide	EC: 200-842-0 CAS: 75-12-7	≥90	Carc. 2, H351 Repr. 1B, H360 STOT RE 2, H373 (blood) (oral)	[1] [2]
Soft Conversion Reagent A tetrahydro-2-furyl-methanol	EC: 202-625-6 CAS: 97-99-4 Index: 603-061-00-7	≥90	Eye Irrit. 2, H319 Repr. 1B, H360FD	[1]
Soft Conversion Reagent B ammonium hydrogensulphite	EC: 233-469-7 CAS: 10192-30-0	≥50 - ≤75	Eye Irrit. 2, H319 EUH031	[1]
Soft Conversion Binding Beads ethanol	EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≥50 - ≤75	Flam. Liq. 2, H225 Eye Irrit. 2, H319	[1] [2]
salts of thiocyanic acid	EC: 209-812-1 CAS: 593-84-0 Index: 615-004-00-3	≥10 - ≤21	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412 EUH032 EUH071	[1]
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	CAS: 9036-19-5	≤6.5	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400	[1] [3]

SECTION 3: Composition/information on ingredients

			(M=10) Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above.
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There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

Nuclease-Free Water	[1] Constituent
End Prep Buffer	[1] Substance classified with a health or environmental hazard
End Prep Enzyme	[1] Substance with a workplace exposure limit
Ligation Enzyme	[1] Substance with a workplace exposure limit
Hyb Buffer	[1] Substance classified with a health or environmental hazard [2] Substance of equivalent concern
Hyb Enhancer	[1] Substance classified with a health or environmental hazard [2] Substance with a workplace exposure limit
Soft Conversion Reagent A	[1] Substance classified with a health or environmental hazard
Soft Conversion Reagent B	[1] Substance classified with a health or environmental hazard
Soft Conversion Binding Beads	[1] Substance classified with a health or environmental hazard [2] Substance with a workplace exposure limit [3] Substance of equivalent concern

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Nuclease-Free Water	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	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. Get medical attention if irritation occurs.
	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. Get medical attention if irritation occurs.
	Adapter for ILM	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Hyb Blocker	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Hyb Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician.
	Hyb Enhancer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	Soft Conversion Reagent A	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	2X Methyl Amplification	Immediately flush eyes with plenty of water, occasionally

SECTION 4: First aid measures

Mastermix	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.
Soft Conversion Reagent B	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.
Soft Conversion Binding Beads	Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.
5X Soft Conversion 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.
Soft Conversion Elution Buffer	Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.
Soft Conversion Repair Solution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Library Binding Beads	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Capture Beads	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Avida Index Primer Pairs 97-192 for ILM	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation : Nuclease-Free Water	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
End Prep Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
End Prep Enzyme	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
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. Get medical attention if symptoms occur.
Adapter for ILM	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

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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.
Soft Conversion Reagent A	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.
2X Methyl Amplification Mastermix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Library Wash Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Hyb Wash Buffer 1	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Hyb Wash Buffer 2	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Soft Conversion Reagent B	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. 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.
Soft Conversion Binding Beads	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a

SECTION 4: First aid measures

position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. 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.

5X Soft Conversion Wash Buffer Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Soft Conversion Elution Buffer Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. 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.

Soft Conversion Repair Solution 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.

Library Binding Beads Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Capture Beads Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Avida Index Primer Pairs 97-192 for ILM Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact

: Nuclease-Free Water Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

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.

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.

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

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

Hyb Buffer Flush contaminated skin with plenty of water. Remove

SECTION 4: First aid measures

	contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Hyb Enhancer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Soft Conversion Reagent A	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 Methyl Amplification Mastermix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Library Wash Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Hyb Wash Buffer 1	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Hyb Wash Buffer 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Soft Conversion Reagent B	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.
Soft Conversion Binding Beads	Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
5X Soft Conversion Wash Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Soft Conversion Elution Buffer	Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Soft Conversion Repair Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Library Binding Beads	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Capture Beads	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Avida Index Primer Pairs 97-192 for ILM	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

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

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	Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
2X Methyl Amplification Mastermix	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Library Wash Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Hyb Wash Buffer 1	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Hyb Wash Buffer 2	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Soft Conversion Reagent B	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Soft Conversion Binding Beads	Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a 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.
5X Soft Conversion Wash Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Soft Conversion Elution Buffer	Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in

SECTION 4: First aid measures

		recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Soft Conversion Repair Solution	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Library Binding Beads	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Capture Beads	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Avida Index Primer Pairs 97-192 for ILM	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	: Nuclease-Free Water	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.
	Ligation Buffer	No action shall be taken involving any personal risk or without suitable training.
	Ligation Enzyme	No action shall be taken involving any personal risk or without suitable training.
	Adapter for ILM	No action shall be taken involving any personal risk or without suitable training.
	Hyb Blocker	No action shall be taken involving any personal risk or without suitable training.
	Hyb Buffer	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	Hyb Enhancer	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	Soft Conversion Reagent A	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	2X Methyl Amplification Mastermix	No action shall be taken involving any personal risk or without suitable training.
	Library Wash Buffer	No action shall be taken involving any personal risk or without suitable training.
	Hyb Wash Buffer 1	No action shall be taken involving any personal risk or without suitable training.
	Hyb Wash Buffer 2	No action shall be taken involving any personal risk or without suitable training.
	Soft Conversion Reagent B	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.

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Soft Conversion Binding Beads	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
5X Soft Conversion Wash Buffer	No action shall be taken involving any personal risk or without suitable training.
Soft Conversion Elution Buffer	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
Soft Conversion Repair Solution	No action shall be taken involving any personal risk or without suitable training.
Library Binding Beads	No action shall be taken involving any personal risk or without suitable training.
Capture Beads	No action shall be taken involving any personal risk or without suitable training.
Avida Index Primer Pairs 97-192 for ILM	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	Nuclease-Free Water	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: pain or irritation watering redness
		Hyb Enhancer	No specific data.
		Soft Conversion Reagent A	Adverse symptoms may include the following: pain or irritation watering redness
		2X Methyl Amplification Mastermix	No specific data.
		Library Wash Buffer	No specific data.
		Hyb Wash Buffer 1	No specific data.
		Hyb Wash Buffer 2	No specific data.
		Soft Conversion Reagent B	Adverse symptoms may include the following: pain or irritation watering redness
		Soft Conversion Binding Beads	Adverse symptoms may include the following: pain watering redness
		5X Soft Conversion Wash Buffer	No specific data.
		Soft Conversion Elution Buffer	Adverse symptoms may include the following:

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		pain watering redness
	Soft Conversion Repair Solution	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Avida Index Primer Pairs 97-192 for ILM	No specific data.
Inhalation	: Nuclease-Free Water	No specific data.
	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
	Soft Conversion Reagent A	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	2X Methyl Amplification Mastermix	No specific data.
	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Soft Conversion Reagent B	No specific data.
	Soft Conversion Binding Beads	Adverse symptoms may include the following: respiratory tract irritation coughing
	5X Soft Conversion Wash Buffer	No specific data.
	Soft Conversion Elution Buffer	No specific data.
	Soft Conversion Repair Solution	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Avida Index Primer Pairs 97-192 for ILM	No specific data.
Skin contact	: Nuclease-Free Water	No specific data.
	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
	Soft Conversion Reagent A	Adverse symptoms may include the following: reduced foetal weight

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		increase in foetal deaths skeletal malformations
	2X Methyl Amplification Mastermix	No specific data.
	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Soft Conversion Reagent B	No specific data.
	Soft Conversion Binding Beads	Adverse symptoms may include the following: pain or irritation redness blistering may occur
	5X Soft Conversion Wash Buffer	No specific data.
	Soft Conversion Elution Buffer	Adverse symptoms may include the following: pain or irritation redness blistering may occur
	Soft Conversion Repair Solution	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Avida Index Primer Pairs 97-192 for ILM	No specific data.
Ingestion	: Nuclease-Free Water	No specific data.
	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
	Soft Conversion Reagent A	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	2X Methyl Amplification Mastermix	No specific data.
	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Soft Conversion Reagent B	No specific data.
	Soft Conversion Binding Beads	Adverse symptoms may include the following: stomach pains
	5X Soft Conversion Wash Buffer	No specific data.
	Soft Conversion Elution Buffer	Adverse symptoms may include the following: stomach pains
	Soft Conversion Repair Solution	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Avida Index Primer Pairs	No specific data.

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4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Nuclease-Free Water	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.
		Soft Conversion Reagent A	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		2X Methyl Amplification Mastermix	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.
		Soft Conversion Reagent B	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.
		Soft Conversion Binding Beads	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.
		5X Soft Conversion Wash Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Soft Conversion Elution Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Soft Conversion Repair Solution	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.
		Library Binding Beads	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Capture Beads	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Avida Index Primer Pairs 97-192 for ILM	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	Nuclease-Free Water	No specific treatment.
		End Prep Buffer	No specific treatment.
		End Prep Enzyme	No specific treatment.
		Ligation Buffer	No specific treatment.
		Ligation Enzyme	No specific treatment.
		Adapter for ILM	No specific treatment.
		Hyb Blocker	No specific treatment.
		Hyb Buffer	No specific treatment.
		Hyb Enhancer	No specific treatment.

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Soft Conversion Reagent A	No specific treatment.
2X Methyl Amplification Mastermix	No specific treatment.
Library Wash Buffer	No specific treatment.
Hyb Wash Buffer 1	No specific treatment.
Hyb Wash Buffer 2	No specific treatment.
Soft Conversion Reagent B	No specific treatment.
Soft Conversion Binding Beads	No specific treatment.
5X Soft Conversion Wash Buffer	No specific treatment.
Soft Conversion Elution Buffer	No specific treatment.
Soft Conversion Repair Solution	No specific treatment.
Library Binding Beads	No specific treatment.
Capture Beads	No specific treatment.
Avida Index Primer Pairs 97-192 for ILM	No specific treatment.

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5.1 Extinguishing media

Suitable extinguishing media	: Nuclease-Free Water	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.
	Soft Conversion Reagent A	Use an extinguishing agent suitable for the surrounding fire.
	2X Methyl Amplification Mastermix	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.
	Soft Conversion Reagent B	Use an extinguishing agent suitable for the surrounding fire.
	Soft Conversion Binding Beads	Use dry chemical, CO ₂ , water spray (fog) or foam.
	5X Soft Conversion Wash Buffer	Use an extinguishing agent suitable for the surrounding fire.
	Soft Conversion Elution Buffer	Use an extinguishing agent suitable for the surrounding fire.
	Soft Conversion Repair Solution	Use an extinguishing agent suitable for the surrounding fire.
	Library Binding Beads	Use an extinguishing agent suitable for the surrounding fire.
Capture Beads	Use an extinguishing agent suitable for the surrounding fire.	
Avida Index Primer Pairs 97-192 for ILM	Use an extinguishing agent suitable for the surrounding fire.	
Unsuitable extinguishing media	: Nuclease-Free Water	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.	

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Soft Conversion Reagent A	None known.
2X Methyl Amplification Mastermix	None known.
Library Wash Buffer	None known.
Hyb Wash Buffer 1	None known.
Hyb Wash Buffer 2	None known.
Soft Conversion Reagent B	None known.
Soft Conversion Binding Beads	Do not use water jet.
5X Soft Conversion Wash Buffer	None known.
Soft Conversion Elution Buffer	None known.
Soft Conversion Repair Solution	None known.
Library Binding Beads	None known.
Capture Beads	None known.
Avida Index Primer Pairs 97-192 for ILM	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: Nuclease-Free Water	In a fire or if heated, a pressure increase will occur and the container may burst.
End Prep Buffer	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
End Prep Enzyme	In a fire or if heated, a pressure increase will occur and the container may burst.
Ligation Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
Ligation Enzyme	In a fire or if heated, a pressure increase will occur and the container may burst.
Adapter for ILM	In a fire or if heated, a pressure increase will occur and the container may burst.
Hyb Blocker	In a fire or if heated, a pressure increase will occur and the container may burst.
Hyb Buffer	In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hyb Enhancer	In a fire or if heated, a pressure increase will occur and the container may burst.
Soft Conversion Reagent A	In a fire or if heated, a pressure increase will occur and the container may burst.
2X Methyl Amplification Mastermix	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.
Soft Conversion Reagent B	In a fire or if heated, a pressure increase will occur and the container may burst.
Soft Conversion Binding Beads	Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is very toxic to

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Hazardous combustion products

	aquatic life. This material is toxic 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.
5X Soft Conversion Wash Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
Soft Conversion Elution Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
Soft Conversion Repair Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
Library Binding Beads	In a fire or if heated, a pressure increase will occur and the container may burst.
Capture Beads	In a fire or if heated, a pressure increase will occur and the container may burst.
Avida Index Primer Pairs 97-192 for ILM	In a fire or if heated, a pressure increase will occur and the container may burst.
Nuclease-Free Water	No specific data.
End Prep Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
End Prep Enzyme	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Ligation Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds
Ligation Enzyme	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Adapter for ILM	No specific data.
Hyb Blocker	No specific data.
Hyb Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides phosphorus oxides halogenated compounds metal oxide/oxides
Hyb Enhancer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
Soft Conversion Reagent A	Decomposition products may include the following materials: carbon dioxide carbon monoxide
2X Methyl Amplification Mastermix	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Library Wash Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
Hyb Wash Buffer 1	Decomposition products may include the following materials: halogenated compounds

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Hyb Wash Buffer 2	metal oxide/oxides
Soft Conversion Reagent B	No specific data.
	Decomposition products may include the following materials:
	nitrogen oxides
	sulfur oxides
Soft Conversion Binding Beads	Decomposition products may include the following materials:
	carbon dioxide
	carbon monoxide
	nitrogen oxides
	sulfur oxides
5X Soft Conversion Wash Buffer	No specific data.
Soft Conversion Elution Buffer	No specific data.
Soft Conversion Repair Solution	Decomposition products may include the following materials:
	carbon dioxide
	carbon monoxide
	nitrogen oxides
	halogenated compounds
Library Binding Beads	Decomposition products may include the following materials:
	carbon dioxide
	carbon monoxide
	halogenated compounds
	metal oxide/oxides
Capture Beads	No specific data.
Avida Index Primer Pairs 97-192 for ILM	No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Nuclease-Free Water	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
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.
Soft Conversion Reagent A	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 Methyl Amplification	Promptly isolate the scene by removing all persons from the

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Mastermix	vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Library Wash Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Hyb Wash Buffer 1	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Hyb Wash Buffer 2	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Soft Conversion Reagent B	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.
Soft Conversion 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
5X Soft Conversion Wash Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Soft Conversion Elution 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.
Soft Conversion Repair Solution	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Library Binding Beads	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Capture Beads	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Avida Index Primer Pairs 97-192 for ILM	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
: Nuclease-Free Water	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
End Prep Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
End Prep Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Ligation Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Ligation Enzyme	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Adapter for ILM	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hyb Blocker	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hyb Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hyb Enhancer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special protective equipment for fire-fighters

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Soft Conversion Reagent A	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
2X Methyl Amplification Mastermix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Library 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.
Soft Conversion Reagent B	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Soft Conversion 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.
5X Soft Conversion 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.
Soft Conversion Elution Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Soft Conversion Repair Solution	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.
Avida Index Primer Pairs 97-192 for ILM	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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6.1 Personal precautions, protective equipment and emergency procedures

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

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	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.
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.
Soft Conversion Reagent A	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 Methyl 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 Wash Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Hyb Wash Buffer 1	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Hyb Wash Buffer 2	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Soft Conversion Reagent B	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.
Soft Conversion Binding Beads	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep

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	unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
5X Soft Conversion 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.
Soft Conversion Elution 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. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Soft Conversion Repair Solution	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Library Binding Beads	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Capture Beads	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Avida Index Primer Pairs 97-192 for ILM	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
For emergency responders : Nuclease-Free Water	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
End Prep Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
End Prep Enzyme	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Ligation Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Ligation Enzyme	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Adapter for ILM	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Hyb Blocker	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and

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	unsuitable materials. See also the information in "For non-emergency personnel".
Hyb Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Hyb Enhancer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Soft Conversion Reagent A	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
2X Methyl Amplification Mastermix	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Library Wash Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Hyb Wash Buffer 1	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Hyb Wash Buffer 2	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Soft Conversion Reagent B	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".
Soft Conversion Binding Beads	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
5X Soft Conversion Wash Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Soft Conversion Elution Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Soft Conversion Repair Solution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Library Binding Beads	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Capture Beads	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Avida Index Primer Pairs 97-192 for ILM	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

SECTION 6: Accidental release measures

6.2 Environmental precautions

: Nuclease-Free Water	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
End Prep Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
End Prep Enzyme	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Ligation Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Ligation Enzyme	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Adapter for ILM	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hyb Blocker	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hyb Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Hyb Enhancer	Avoid dispersal of 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).
Soft Conversion Reagent A	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 Methyl 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 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).
Soft Conversion Reagent B	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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Soft Conversion 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
5X Soft Conversion 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).
Soft Conversion Elution 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).
Soft Conversion Repair Solution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Library Binding Beads	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Capture Beads	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Avida Index Primer Pairs 97-192 for ILM	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 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.
End Prep Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
End Prep Enzyme	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Ligation Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Ligation Enzyme	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Adapter for ILM	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Hyb Blocker	Stop leak if without risk. Move containers from spill area.

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	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.
Soft Conversion Reagent A	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 Methyl 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 Wash Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Hyb Wash Buffer 1	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Hyb Wash Buffer 2	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Soft Conversion Reagent B	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.
Soft Conversion Binding Beads	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. May be harmful to the environment if released. Dispose of spillages under controlled conditions.
5X Soft Conversion Wash Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Soft Conversion Elution Buffer	Stop leak if without risk. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Move containers from spill area. Dispose of via a licensed waste disposal contractor.
Soft Conversion Repair Solution	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively,

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	or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Library Binding Beads	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Capture Beads	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Avida Index Primer Pairs 97-192 for ILM	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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

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	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.
Soft Conversion Reagent A	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
2X Methyl Amplification Mastermix	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).
Soft Conversion Reagent B	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.
Soft Conversion Binding Beads	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. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
5X Soft Conversion Wash Buffer	Put on appropriate personal protective equipment (see Section 8).
Soft Conversion Elution 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. 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. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.
Soft Conversion Repair Solution	Put on appropriate personal protective equipment (see Section 8).
Library Binding Beads	Put on appropriate personal protective equipment (see Section 8).
Capture Beads	Put on appropriate personal protective equipment (see Section 8).
Avida Index Primer Pairs	Put on appropriate personal protective equipment (see

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Advice on general occupational hygiene	97-192 for ILM	Section 8).
	: Nuclease-Free Water	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	End Prep Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	End Prep Enzyme	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Ligation Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Ligation Enzyme	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Adapter for ILM	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Hyb Blocker	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Hyb Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Hyb Enhancer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Soft Conversion Reagent A	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
2X Methyl Amplification Mastermix	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking	

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Library Wash Buffer	and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Hyb 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.
Soft Conversion Reagent B	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.
Soft Conversion Binding Beads	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
5X Soft Conversion Wash Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Soft Conversion Elution Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Soft Conversion Repair Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Library Binding Beads	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Capture Beads	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Avida Index Primer Pairs	Eating, drinking and smoking should be prohibited in areas

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

7.2 Conditions for safe storage, including any incompatibilities

Storage

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

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

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Hyb Wash Buffer 1	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Hyb Wash Buffer 2	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Soft Conversion Reagent B	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.
Soft Conversion Binding Beads	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. 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.
5X Soft Conversion Wash Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Soft Conversion Elution Buffer	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Separate from acids. 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.
Soft Conversion Repair Solution	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-

SECTION 7: Handling and storage

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

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
Hyb Buffer H3	50 tonne	200 tonne
Soft Conversion Binding Beads P5c E1	5000 tonne 100 tonne	50000 tonne 200 tonne

7.3 Specific end use(s)

Recommendations

: Nuclease-Free Water	Industrial applications, Professional applications.
End Prep Buffer	Industrial applications, Professional applications.
End Prep Enzyme	Industrial applications, Professional applications.
Ligation Buffer	Industrial applications, Professional applications.
Ligation Enzyme	Industrial applications, Professional applications.
Adapter for ILM	Industrial applications, Professional applications.
Hyb Blocker	Industrial applications, Professional applications.
Hyb Buffer	Industrial applications, Professional applications.
Hyb Enhancer	Industrial applications, Professional applications.
Soft Conversion	Industrial applications, Professional applications.

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Reagent A	
2X Methyl Amplification Mastermix	Industrial applications, Professional applications.
Library Wash Buffer	Industrial applications, Professional applications.
Hyb Wash Buffer 1	Industrial applications, Professional applications.
Hyb Wash Buffer 2	Industrial applications, Professional applications.
Soft Conversion	Industrial applications, Professional applications.
Reagent B	
Soft Conversion Binding Beads	Industrial applications, Professional applications.
5X Soft Conversion Wash Buffer	Industrial applications, Professional applications.
Soft Conversion Elution Buffer	Industrial applications, Professional applications.
Soft Conversion Repair Solution	Industrial applications, Professional applications.
Library Binding Beads	Industrial applications, Professional applications.
Capture Beads	Industrial applications, Professional applications.
Avida Index Primer Pairs 97-192 for ILM	Industrial applications, Professional applications.
Industrial sector specific solutions :	
Nuclease-Free Water	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.
Soft Conversion	Not available.
Reagent A	
2X Methyl Amplification Mastermix	Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Soft Conversion	Not available.
Reagent B	
Soft Conversion Binding Beads	Not available.
5X Soft Conversion Wash Buffer	Not available.
Soft Conversion Elution Buffer	Not available.
Soft Conversion Repair Solution	Not available.
Library Binding Beads	Not available.
Capture Beads	Not available.
Avida Index Primer Pairs 97-192 for ILM	Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
End Prep Enzyme Glycerol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 mg/m ³ 8 hours. Form: Mist
Ligation Enzyme Glycerol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 mg/m ³ 8 hours. Form: Mist
Hyb Enhancer Formamide	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 56 mg/m ³ 15 minutes. STEL: 30 ppm 15 minutes. TWA: 37 mg/m ³ 8 hours. TWA: 20 ppm 8 hours.
Soft Conversion Binding Beads ethanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 1000 ppm 8 hours. TWA: 1920 mg/m ³ 8 hours.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
End Prep Buffer Magnesium chloride	DNEL	Long term Oral	7 mg/kg bw/day	General population	Systemic
Hyb Buffer tetramethylammonium chloride	DNEL	Long term Oral	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.76 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	2.9 mg/m ³	Workers	Systemic
Hyb Enhancer Formamide	DNEL	Long term Dermal	0.952 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	6.6 mg/m ³	Workers	Systemic
Soft Conversion Reagent A tetrahydro-2-furyl-methanol	DNEL	Long term Oral	0.175 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.25 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term	1.4 mg/m ³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

Soft Conversion Binding Beads ethanol		Inhalation				
	DNEL	Long term Inhalation	380 mg/m ³	Workers	Systemic	
	DNEL	Long term Oral	87 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Inhalation	114 mg/m ³	General population	Systemic	
	DNEL	Long term Dermal	206 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	343 mg/kg bw/day	Workers	Systemic	
	DNEL	Short term Inhalation	950 mg/m ³	General population	Local	
	DNEL	Short term Inhalation	1900 mg/ m ³	Workers	Local	
	salts of thiocyanic acid	DNEL	Long term Oral	0.155 mg/ kg bw/day	General population	Systemic
		DNEL	Long term Dermal	0.155 mg/ kg bw/day	General population	Systemic
DNEL		Long term Inhalation	0.27 mg/m ³	General population	Systemic	
DNEL		Long term Dermal	0.31 mg/ kg bw/day	Workers	Systemic	
DNEL		Long term Inhalation	1.092 mg/ m ³	Workers	Systemic	
DNEL		Short term Inhalation	3.28 mg/m ³	Workers	Systemic	

PNECs

No PNECs available

8.2 Exposure controls

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.

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.

SECTION 8: Exposure controls/personal protection

- 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.
- 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.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Nuclease-Free Water	Liquid.
	End Prep Buffer	Liquid.
	End Prep Enzyme	Liquid.
	Ligation Buffer	Liquid.
	Ligation Enzyme	Liquid.
	Adapter for ILM	Liquid.
	Hyb Blocker	Liquid.
	Hyb Buffer	Liquid.
	Hyb Enhancer	Liquid.
	Soft Conversion	Liquid.
	Reagent A	
	2X Methyl Amplification	Liquid. [Clear.]
	Mastermix	
	Library Wash Buffer	Liquid.
	Hyb Wash Buffer 1	Liquid.
	Hyb Wash Buffer 2	Liquid.
	Soft Conversion	Liquid.
	Reagent B	
	Soft Conversion Binding	Liquid.
	Beads	
	5X Soft Conversion	Liquid.
	Wash Buffer	
	Soft Conversion Elution	Liquid.
	Buffer	
	Soft Conversion Repair	Liquid.
Solution		
Library Binding Beads	Liquid.	
Capture Beads	Liquid.	
Avida Index Primer Pairs	Liquid.	
97-192 for ILM		
Colour	Nuclease-Free Water	Colourless.
	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.
	Soft Conversion	Not available.
	Reagent A	
	2X Methyl Amplification	Not available.
	Mastermix	
Library Wash Buffer	Not available.	

SECTION 9: Physical and chemical properties

Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Soft Conversion	Not available.
Reagent B	
Soft Conversion Binding	Not available.
Beads	
5X Soft Conversion	Not available.
Wash Buffer	
Soft Conversion Elution	Not available.
Buffer	
Soft Conversion Repair	Not available.
Solution	
Library Binding Beads	Not available.
Capture Beads	Not available.
Avida Index Primer Pairs	Not available.
97-192 for ILM	

Odour

: Nuclease-Free Water	Odourless.
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.
Soft Conversion	Not available.
Reagent A	
2X Methyl Amplification	Not available.
Mastermix	
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Soft Conversion	Not available.
Reagent B	
Soft Conversion Binding	Not available.
Beads	
5X Soft Conversion	Not available.
Wash Buffer	
Soft Conversion Elution	Not available.
Buffer	
Soft Conversion Repair	Not available.
Solution	
Library Binding Beads	Not available.
Capture Beads	Not available.
Avida Index Primer Pairs	Not available.
97-192 for ILM	

Odour threshold

: Nuclease-Free Water	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.
Soft Conversion	Not available.
Reagent A	
2X Methyl Amplification	Not available.
Mastermix	
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Soft Conversion	Not available.

SECTION 9: Physical and chemical properties

	Reagent B	
	Soft Conversion Binding Beads	Not available.
	5X Soft Conversion Wash Buffer	Not available.
	Soft Conversion Elution Buffer	Not available.
	Soft Conversion Repair Solution	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Avida Index Primer Pairs 97-192 for ILM	Not available.
Melting point/freezing point	: Nuclease-Free Water	0°C
	End Prep Buffer	Not available.
	End Prep Enzyme	Not available.
	Ligation Buffer	Not available.
	Ligation Enzyme	Not available.
	Adapter for ILM	0°C
	Hyb Blocker	0°C
	Hyb Buffer	Not available.
	Hyb Enhancer	Not available.
	Soft Conversion	<-120°C
	Reagent A	
	2X Methyl Amplification Mastermix	Not available.
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	0°C
	Soft Conversion	Not available.
	Reagent B	
	Soft Conversion Binding Beads	Not available.
	5X Soft Conversion Wash Buffer	0°C
	Soft Conversion Elution Buffer	Not available.
	Soft Conversion Repair Solution	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Avida Index Primer Pairs 97-192 for ILM	0°C
Initial boiling point and boiling range	: Nuclease-Free Water	100°C
	End Prep Buffer	Not available.
	End Prep Enzyme	Not available.
	Ligation Buffer	Not available.
	Ligation Enzyme	Not available.
	Adapter for ILM	100°C
	Hyb Blocker	100°C
	Hyb Buffer	Not available.
	Hyb Enhancer	Not available.
	Soft Conversion	177.7°C
	Reagent A	
	2X Methyl Amplification Mastermix	Not available.
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	100°C
	Soft Conversion	Not available.
	Reagent B	
	Soft Conversion Binding Beads	Not available.

SECTION 9: Physical and chemical properties

5X Soft Conversion 100°C
 Wash Buffer
 Soft Conversion Elution Not available.
 Buffer
 Soft Conversion Repair Not available.
 Solution
 Library Binding Beads Not available.
 Capture Beads Not available.
 Avida Index Primer Pairs 100°C
 97-192 for ILM

Flammability

: Nuclease-Free Water 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.
 Soft Conversion Not applicable.
 Reagent A
 2X Methyl Amplification Not applicable.
 Mastermix
 Library Wash Buffer Not applicable.
 Hyb Wash Buffer 1 Not applicable.
 Hyb Wash Buffer 2 Not applicable.
 Soft Conversion Not applicable.
 Reagent B
 Soft Conversion Binding Not applicable.
 Beads
 5X Soft Conversion Not applicable.
 Wash Buffer
 Soft Conversion Elution Not applicable.
 Buffer
 Soft Conversion Repair Not applicable.
 Solution
 Library Binding Beads Not applicable.
 Capture Beads Not applicable.
 Avida Index Primer Pairs Not applicable.
 97-192 for ILM

Upper/lower flammability or explosive limits

: Nuclease-Free Water 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.
 Soft Conversion Not available.
 Reagent A
 2X Methyl Amplification Not available.
 Mastermix
 Library Wash Buffer Not available.
 Hyb Wash Buffer 1 Not available.
 Hyb Wash Buffer 2 Not available.
 Soft Conversion Not available.
 Reagent B
 Soft Conversion Binding Not available.
 Beads
 5X Soft Conversion Not available.
 Wash Buffer
 Soft Conversion Elution Not available.

SECTION 9: Physical and chemical properties

Flash point

Buffer	
Soft Conversion Repair Solution	Not available.
Library Binding Beads	Not available.
Capture Beads	Not available.
Avida Index Primer Pairs 97-192 for ILM	Not available.
Nuclease-Free Water	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.
Soft Conversion Reagent A	Closed cup: 73°C
2X Methyl Amplification Mastermix	Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Soft Conversion Reagent B	Not available.
Soft Conversion Binding Beads	Closed cup: 37.8 to 61°C
5X Soft Conversion Wash Buffer	Not available.
Soft Conversion Elution Buffer	Not available.
Soft Conversion Repair Solution	Not available.
Library Binding Beads	Not available.
Capture Beads	Not available.
Avida Index Primer Pairs 97-192 for ILM	Not available.

Ingredient name	Closed cup		Open cup	
	°C	Method	°C	Method
End Prep Enzyme				
glycerol	-	-	177	-
Ligation Buffer				
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	171 to 235	-	199 to 238	-
Ligation Enzyme				
glycerol	-	-	177	-
Hyb Enhancer				
formamide	150	-	152	DIN EN ISO 2592
Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	171 to 235	-	199 to 238	-

SECTION 9: Physical and chemical properties

Auto-ignition temperature

Library Wash Buffer				
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	171 to 235	-	199 to 238	-
Library Binding Beads				
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	171 to 235	-	199 to 238	-

: Nuclease-Free Water Not applicable.
 2X Methyl Amplification 215°C
 Mastermix

Ingredient name	°C	Method
End Prep Enzyme		
glycerol	370	-
Ligation Buffer		
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	360	-
Ligation Enzyme		
glycerol	370	-
Hyb Enhancer		
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	360	-
formamide	>500	ASTM D 2155-66
Soft Conversion Reagent A		
tetrahydro-2-furyl-methanol	282	-
Library Wash Buffer		
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	360	-
Soft Conversion Binding Beads		
ethanol	455	DIN 51794
Library Binding Beads		
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	360	-

SECTION 9: Physical and chemical properties

Decomposition temperature	:	Nuclease-Free Water	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.
		Soft Conversion Reagent A	Not available.
		2X Methyl Amplification Mastermix	Not available.
		Library Wash Buffer	Not available.
		Hyb Wash Buffer 1	Not available.
		Hyb Wash Buffer 2	Not available.
		Soft Conversion Reagent B	Not available.
		Soft Conversion Binding Beads	Not available.
		5X Soft Conversion Wash Buffer	Not available.
		Soft Conversion Elution Buffer	Not available.
		Soft Conversion Repair Solution	Not available.
		Library Binding Beads	Not available.
		Capture Beads	Not available.
		Avida Index Primer Pairs 97-192 for ILM	Not available.

pH	:	Nuclease-Free Water	7
		End Prep Buffer	8
		End Prep Enzyme	7.5
		Ligation Buffer	8
		Ligation Enzyme	7.5
		Adapter for ILM	8
		Hyb Blocker	8
		Hyb Buffer	7.5
		Hyb Enhancer	Not available.
		Soft Conversion Reagent A	Not available.
		2X Methyl Amplification Mastermix	8.6
		Library Wash Buffer	Not available.
		Hyb Wash Buffer 1	7.2 to 7.6
		Hyb Wash Buffer 2	7.2 to 7.6
		Soft Conversion Reagent B	4.5 to 5.5
		Soft Conversion Binding Beads	Not available.
		5X Soft Conversion Wash Buffer	Not available.
		Soft Conversion Elution Buffer	13
		Soft Conversion Repair Solution	8
		Library Binding Beads	8
		Capture Beads	Not available.
		Avida Index Primer Pairs 97-192 for ILM	8

SECTION 9: Physical and chemical properties

Viscosity	:	Nuclease-Free Water	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.
		Soft Conversion Reagent A	Not available.
		2X Methyl Amplification Mastermix	Not available.
		Library Wash Buffer	Not available.
		Hyb Wash Buffer 1	Not available.
		Hyb Wash Buffer 2	Not available.
		Soft Conversion Reagent B	Not available.
		Soft Conversion Binding Beads	Not available.
		5X Soft Conversion Wash Buffer	Not available.
		Soft Conversion Elution Buffer	Not available.
		Soft Conversion Repair Solution	Not available.
		Library Binding Beads	Not available.
		Capture Beads	Not available.
		Avida Index Primer Pairs 97-192 for ILM	Not available.

Solubility(ies)	:	Media	Result
		Nuclease-Free Water water	Soluble
		End Prep Buffer water	Soluble
		End Prep Enzyme water	Soluble
		Ligation Buffer water	Soluble
		Ligation Enzyme water	Soluble
		Adapter for ILM water	Soluble
		Hyb Blocker water	Soluble
		Hyb Buffer water	Soluble
		Hyb Enhancer water	Soluble
		Soft Conversion Reagent A water	Soluble
		2X Methyl Amplification Mastermix water	Soluble
		Library Wash Buffer water	Soluble
		Hyb Wash Buffer 1 water	Soluble
		Hyb Wash Buffer 2 water	Soluble
		Soft Conversion Reagent B water	Soluble
		Soft Conversion Binding Beads	Soluble

SECTION 9: Physical and chemical properties

water	Soluble
5X Soft Conversion Wash Buffer	
water	Soluble
Soft Conversion Elution Buffer	
water	Soluble
Soft Conversion Repair Solution	
water	Soluble
Library Binding Beads	
water	Soluble
Capture Beads	
water	Soluble
Avida Index Primer Pairs 97-192 for ILM	
water	Soluble

Partition coefficient: n-octanol/water

: Nuclease-Free Water	-1.38
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.
Soft Conversion Reagent A	Not applicable.
2X Methyl Amplification Mastermix	Not applicable.
Library Wash Buffer	Not applicable.
Hyb Wash Buffer 1	Not applicable.
Hyb Wash Buffer 2	Not applicable.
Soft Conversion Reagent B	Not applicable.
Soft Conversion Binding Beads	Not applicable.
5X Soft Conversion Wash Buffer	Not applicable.
Soft Conversion Elution Buffer	Not applicable.
Soft Conversion Repair Solution	Not applicable.
Library Binding Beads	Not applicable.
Capture Beads	Not applicable.
Avida Index Primer Pairs 97-192 for ILM	Not applicable.

Vapour pressure

: Nuclease-Free Water	2.3 kPa (17.5 mm Hg) [room temperature] 12.3 kPa (92.258 mm Hg) [50°C]
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Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
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						

SECTION 9: Physical and chemical properties

water	17.5	2.3	-	92.258	12.3	-
Ligation Enzyme						
water	17.5	2.3	-	92.258	12.3	-
glycerol	0.000075	0.00001	-	0.0025	0.00033	-
Adapter for ILM						
water	17.5	2.3	-	92.258	12.3	-
Hyb Blocker						
water	17.5	2.3	-	92.258	12.3	-
Hyb Buffer						
water	17.5	2.3	-	92.258	12.3	-
tetramethylammonium chloride	0.000000001	0.0000000013	EU A.4	-	-	-
Hyb Enhancer						
formamide	0.045	0.006	-	-	-	-
Soft Conversion Reagent A						
tetrahydro-2-furyl-methanol	1.4	0.19	-	-	-	-
2X Methyl Amplification Mastermix						
water	17.5	2.3	-	92.258	12.3	-
Library Wash Buffer						
water	17.5	2.3	-	92.258	12.3	-
Hyb Wash Buffer 1						
water	17.5	2.3	-	92.258	12.3	-
Hyb Wash Buffer 2						
water	17.5	2.3	-	92.258	12.3	-
Soft Conversion Reagent B						

SECTION 9: Physical and chemical properties

water	17.5	2.3	-	92.258	12.3	-
Soft Conversion Binding Beads						
ethanol	42.94865	5.7	-	-	-	-
water	17.5	2.3	-	92.258	12.3	-
5X Soft Conversion Wash Buffer						
water	17.5	2.3	-	92.258	12.3	-
Soft Conversion Elution Buffer						
water	17.5	2.3	-	92.258	12.3	-
Soft Conversion Repair Solution						
water	17.5	2.3	-	92.258	12.3	-
Library Binding Beads						
water	17.5	2.3	-	92.258	12.3	-
Capture Beads						
water	17.5	2.3	-	92.258	12.3	-
Avida Index Primer Pairs 97-192 for ILM						
water	17.5	2.3	-	92.258	12.3	-

Evaporation rate

- : Nuclease-Free Water 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.
- Soft Conversion Reagent A Not available.
- 2X Methyl Amplification Mastermix Not available.
- Library Wash Buffer Not available.
- Hyb Wash Buffer 1 Not available.
- Hyb Wash Buffer 2 Not available.
- Soft Conversion Reagent B Not available.
- Soft Conversion Binding Not available.

SECTION 9: Physical and chemical properties

	Beads	
	5X Soft Conversion Wash Buffer	Not available.
	Soft Conversion Elution Buffer	Not available.
	Soft Conversion Repair Solution	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Avida Index Primer Pairs 97-192 for ILM	Not available.
Relative density	: Nuclease-Free Water	1
	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.
	Soft Conversion Reagent A	Not available.
	2X Methyl Amplification Mastermix	Not available.
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	Not available.
	Soft Conversion Reagent B	Not available.
	Soft Conversion Binding Beads	Not available.
	5X Soft Conversion Wash Buffer	Not available.
	Soft Conversion Elution Buffer	Not available.
	Soft Conversion Repair Solution	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Avida Index Primer Pairs 97-192 for ILM	Not available.
Vapour density	: Nuclease-Free Water	0.62 [Air = 1]
	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.
	Soft Conversion Reagent A	Not available.
	2X Methyl Amplification Mastermix	Not available.
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	Not available.
	Soft Conversion Reagent B	Not available.
	Soft Conversion Binding Beads	Not available.
	5X Soft Conversion Wash Buffer	Not available.

SECTION 9: Physical and chemical properties

	Soft Conversion Elution Buffer	Not available.
	Soft Conversion Repair Solution	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Avida Index Primer Pairs 97-192 for ILM	Not available.
Explosive properties	: Nuclease-Free Water	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.
	Soft Conversion Reagent A	Not available.
	2X Methyl Amplification Mastermix	Not available.
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	Not available.
	Soft Conversion Reagent B	Not available.
	Soft Conversion Binding Beads	Not available.
	5X Soft Conversion Wash Buffer	Not available.
	Soft Conversion Elution Buffer	Not available.
	Soft Conversion Repair Solution	Not available.
	Library Binding Beads	Not available.
	Capture Beads	Not available.
	Avida Index Primer Pairs 97-192 for ILM	Not available.
Oxidising properties	: Nuclease-Free Water	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.
	Soft Conversion Reagent A	Not available.
	2X Methyl Amplification Mastermix	Not available.
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	Not available.
	Soft Conversion Reagent B	Not available.
	Soft Conversion Binding Beads	Not available.
	5X Soft Conversion Wash Buffer	Not available.
	Soft Conversion Elution Buffer	Not available.
	Soft Conversion Repair	Not available.

SECTION 9: Physical and chemical properties

Solution	
Library Binding Beads	Not available.
Capture Beads	Not available.
Avida Index Primer Pairs 97-192 for ILM	Not available.

Particle characteristics

Median particle size	:	Nuclease-Free Water	Not applicable.
		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.
		Soft Conversion Reagent A	Not applicable.
		2X Methyl Amplification Mastermix	Not applicable.
		Library Wash Buffer	Not applicable.
		Hyb Wash Buffer 1	Not applicable.
		Hyb Wash Buffer 2	Not applicable.
		Soft Conversion Reagent B	Not applicable.
		Soft Conversion Binding Beads	Not applicable.
		5X Soft Conversion Wash Buffer	Not applicable.
		Soft Conversion Elution Buffer	Not applicable.
		Soft Conversion Repair Solution	Not applicable.
		Library Binding Beads	Not applicable.
		Capture Beads	Not applicable.
		Avida Index Primer Pairs 97-192 for ILM	Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	Nuclease-Free Water	No specific test data related to reactivity available for this product or its ingredients.
		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.
		Soft Conversion Reagent A	No specific test data related to reactivity available for this product or its ingredients.
		2X Methyl Amplification	No specific test data related to reactivity available for this product or its ingredients.

SECTION 10: Stability and reactivity

Mastermix	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.
Soft Conversion Reagent B	No specific test data related to reactivity available for this product or its ingredients.
Soft Conversion Binding Beads	No specific test data related to reactivity available for this product or its ingredients.
5X Soft Conversion Wash Buffer	No specific test data related to reactivity available for this product or its ingredients.
Soft Conversion Elution Buffer	No specific test data related to reactivity available for this product or its ingredients.
Soft Conversion Repair Solution	No specific test data related to reactivity available for this product or its ingredients.
Library Binding Beads	No specific test data related to reactivity available for this product or its ingredients.
Capture Beads	No specific test data related to reactivity available for this product or its ingredients.
Avida Index Primer Pairs 97-192 for ILM	No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

: Nuclease-Free Water	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.
Soft Conversion Reagent A	The product is stable.
2X Methyl Amplification Mastermix	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.
Soft Conversion Reagent B	The product is stable.
Soft Conversion Binding Beads	The product is stable.
5X Soft Conversion Wash Buffer	The product is stable.
Soft Conversion Elution Buffer	The product is stable.
Soft Conversion Repair Solution	The product is stable.
Library Binding Beads	The product is stable.
Capture Beads	The product is stable.
Avida Index Primer Pairs 97-192 for ILM	The product is stable.

10.3 Possibility of hazardous reactions

: Nuclease-Free Water	Under normal conditions of storage and use, hazardous reactions will not occur.
End Prep Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
End Prep Enzyme	Under normal conditions of storage and use, hazardous reactions will not occur.
Ligation Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.

SECTION 10: Stability and reactivity

Ligation Enzyme	Under normal conditions of storage and use, hazardous reactions will not occur.
Adapter for ILM	Under normal conditions of storage and use, hazardous reactions will not occur.
Hyb Blocker	Under normal conditions of storage and use, hazardous reactions will not occur.
Hyb Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
Hyb Enhancer	Under normal conditions of storage and use, hazardous reactions will not occur.
Soft Conversion Reagent A	Under normal conditions of storage and use, hazardous reactions will not occur.
2X Methyl Amplification Mastermix	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.
Soft Conversion Reagent B	Under normal conditions of storage and use, hazardous reactions will not occur.
Soft Conversion Binding Beads	Under normal conditions of storage and use, hazardous reactions will not occur.
5X Soft Conversion Wash Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
Soft Conversion Elution Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
Soft Conversion Repair Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
Library Binding Beads	Under normal conditions of storage and use, hazardous reactions will not occur.
Capture Beads	Under normal conditions of storage and use, hazardous reactions will not occur.
Avida Index Primer Pairs 97-192 for ILM	Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid	:	Nuclease-Free Water	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.
		Soft Conversion Reagent A	No specific data.
		2X Methyl Amplification Mastermix	No specific data.
		Library Wash Buffer	No specific data.
		Hyb Wash Buffer 1	No specific data.
		Hyb Wash Buffer 2	No specific data.
		Soft Conversion Reagent B	No specific data.
		Soft Conversion Binding Beads	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
		5X Soft Conversion Wash Buffer	No specific data.
		Soft Conversion Elution Buffer	No specific data.
		Soft Conversion Repair Solution	No specific data.

SECTION 10: Stability and reactivity

Library Binding Beads	No specific data.
Capture Beads	No specific data.
Avida Index Primer Pairs 97-192 for ILM	No specific data.

10.5 Incompatible materials

<ul style="list-style-type: none"> : Nuclease-Free Water End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer Soft Conversion Reagent A 2X Methyl Amplification Mastermix Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Soft Conversion Reagent B Soft Conversion Binding Beads 5X Soft Conversion Wash Buffer Soft Conversion Elution Buffer Soft Conversion Repair Solution Library Binding Beads Capture Beads Avida Index Primer Pairs 97-192 for ILM 	<ul style="list-style-type: none"> May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. Reactive or incompatible with the following materials: oxidising materials May react or be incompatible with oxidising materials. Reactive or incompatible with the following materials: acids May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
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10.6 Hazardous decomposition products

<ul style="list-style-type: none"> : Nuclease-Free Water End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer Soft Conversion Reagent A 2X Methyl Amplification Mastermix Library Wash Buffer Hyb Wash Buffer 1 	<ul style="list-style-type: none"> Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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SECTION 10: Stability and reactivity

Hyb Wash Buffer 2	decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Soft Conversion Reagent B	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Soft Conversion Binding Beads	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
5X Soft Conversion Wash Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Soft Conversion Elution Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Soft Conversion Repair Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Library Binding Beads	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Capture Beads	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Avida Index Primer Pairs 97-192 for ILM	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	
End Prep Buffer Magnesium chloride	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-	
	LD50 Oral	Rat	2800 mg/kg	-	
End Prep Enzyme Glycerol	LD50 Oral	Rat	12600 mg/kg	-	
	LD50 Oral	Rat	12600 mg/kg	-	
Ligation Enzyme Glycerol	LD50 Oral	Rat	12600 mg/kg	-	
	LD50 Oral	Rat	12600 mg/kg	-	
Hyb Buffer tetramethylammonium chloride	LD50 Dermal	Rabbit - Male, Female	200 to 500 mg/kg	-	
	LD50 Oral	Rat	50 mg/kg	-	
	LD50 Oral	Rat	20600 mg/kg	-	
	LD50 Oral	Rat	2800 mg/kg	-	
Hyb Enhancer Formamide	LC50 Inhalation Dusts and mists	Rat - Male	>21 mg/l	4 hours	
	LD50 Dermal	Rabbit	17 g/kg	-	
	LD50 Oral	Rat	5570 mg/kg	-	
Soft Conversion Binding Beads ethanol	LC50 Inhalation Vapour	Rat	124700 mg/m ³	4 hours	
	LD50 Oral	Rat	7 g/kg	-	
	salts of thiocyanic acid	LC50 Inhalation Dusts and mists	Rat - Female	3.181 mg/l	4 hours
		LD50 Oral	Rat - Male, Female	593 mg/kg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-	

SECTION 11: Toxicological information

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)
End Prep Buffer Magnesium chloride	2800	N/A	N/A	N/A	N/A
End Prep Enzyme Glycerol	12600	N/A	N/A	N/A	N/A
Ligation Enzyme Glycerol	12600	N/A	N/A	N/A	N/A
Hyb Buffer Hyb Buffer	456.2	2737.2	N/A	N/A	N/A
tetramethylammonium chloride	50	300	N/A	N/A	N/A
Dextran sulfate sodium	20600	N/A	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	500	N/A	N/A	N/A	N/A
Hyb Enhancer Formamide	5570	17000	N/A	N/A	N/A
Soft Conversion Binding Beads Soft Conversion Binding Beads	2299.0	5782.2	N/A	N/A	16.7
ethanol	7000	N/A	N/A	124.7	N/A
salts of thiocyanic acid	593	1100	N/A	N/A	3.181
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	500	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
End Prep Enzyme Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Ligation Enzyme Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Hyb Buffer Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-
Soft Conversion Reagent A tetrahydro-2-furyl-methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Soft Conversion Binding Beads ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.06666667 minutes 100 mg	-

SECTION 11: Toxicological information

Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl phenyl)]-.omega.-hydroxy-	Eyes - Moderate irritant	Rabbit	-	100 uL	-
	Eyes - Severe irritant	Rabbit	-	1 %	-

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Hyb Buffer tetramethylammonium chloride	Category 1	oral	central nervous system (CNS)
Dextran sulfate sodium	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	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.
End Prep Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
End Prep Enzyme	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Ligation Buffer	Not available.
Ligation Enzyme	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Adapter for ILM	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Hyb Blocker	Not available.
Hyb Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Hyb Enhancer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Soft Conversion	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Reagent A	
2X Methyl Amplification Mastermix	Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Soft Conversion	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Reagent B	
Soft Conversion Binding Beads	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
5X Soft Conversion Wash Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Soft Conversion Elution Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Soft Conversion Repair Solution	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

SECTION 11: Toxicological information

Library Binding Beads	Not available.
Capture Beads	Not available.
Avida Index Primer Pairs 97-192 for ILM	Not available.

Potential acute health effects

Inhalation

Nuclease-Free Water	No known significant effects or critical hazards.
End Prep Buffer	No known significant effects or critical hazards.
End Prep Enzyme	No known significant effects or critical hazards.
Ligation Buffer	No known significant effects or critical hazards.
Ligation Enzyme	No known significant effects or critical hazards.
Adapter for ILM	No known significant effects or critical hazards.
Hyb Blocker	No known significant effects or critical hazards.
Hyb Buffer	Causes damage to organs following a single exposure if inhaled.
Hyb Enhancer	No known significant effects or critical hazards.
Soft Conversion Reagent A	No known significant effects or critical hazards.
2X Methyl Amplification Mastermix	No known significant effects or critical hazards.
Library Wash Buffer	No known significant effects or critical hazards.
Hyb Wash Buffer 1	No known significant effects or critical hazards.
Hyb Wash Buffer 2	No known significant effects or critical hazards.
Soft Conversion Reagent B	No known significant effects or critical hazards.
Soft Conversion Binding Beads	Corrosive to the respiratory tract. Causes burns.
5X Soft Conversion Wash Buffer	No known significant effects or critical hazards.
Soft Conversion Elution Buffer	No known significant effects or critical hazards.
Soft Conversion Repair Solution	No known significant effects or critical hazards.
Library Binding Beads	No known significant effects or critical hazards.
Capture Beads	No known significant effects or critical hazards.
Avida Index Primer Pairs 97-192 for ILM	No known significant effects or critical hazards.

Ingestion

Nuclease-Free Water	No known significant effects or critical hazards.
End Prep Buffer	No known significant effects or critical hazards.
End Prep Enzyme	No known significant effects or critical hazards.
Ligation Buffer	No known significant effects or critical hazards.
Ligation Enzyme	No known significant effects or critical hazards.
Adapter for ILM	No known significant effects or critical hazards.
Hyb Blocker	No known significant effects or critical hazards.
Hyb Buffer	Harmful if swallowed. Causes damage to organs following a single exposure if swallowed.
Hyb Enhancer	No known significant effects or critical hazards.
Soft Conversion Reagent A	No known significant effects or critical hazards.
2X Methyl Amplification Mastermix	No known significant effects or critical hazards.
Library Wash Buffer	No known significant effects or critical hazards.
Hyb Wash Buffer 1	No known significant effects or critical hazards.
Hyb Wash Buffer 2	No known significant effects or critical hazards.
Soft Conversion Reagent B	No known significant effects or critical hazards.
Soft Conversion Binding Beads	Corrosive to the digestive tract. Causes burns.
5X Soft Conversion Wash Buffer	No known significant effects or critical hazards.
Soft Conversion Elution Buffer	No known significant effects or critical hazards.
Soft Conversion Repair Solution	No known significant effects or critical hazards.

SECTION 11: Toxicological information

	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Avida Index Primer Pairs 97-192 for ILM	No known significant effects or critical hazards.
Skin contact	: Nuclease-Free Water	No known significant effects or critical hazards.
	End Prep Buffer	No known significant effects or critical hazards.
	End Prep Enzyme	No known significant effects or critical hazards.
	Ligation Buffer	No known significant effects or critical hazards.
	Ligation Enzyme	No known significant effects or critical hazards.
	Adapter for ILM	No known significant effects or critical hazards.
	Hyb Blocker	No known significant effects or critical hazards.
	Hyb Buffer	Causes damage to organs following a single exposure in contact with skin. Causes skin irritation.
	Hyb Enhancer	No known significant effects or critical hazards.
	Soft Conversion Reagent A	No known significant effects or critical hazards.
	2X Methyl Amplification Mastermix	No known significant effects or critical hazards.
	Library Wash Buffer	No known significant effects or critical hazards.
	Hyb Wash Buffer 1	No known significant effects or critical hazards.
	Hyb Wash Buffer 2	No known significant effects or critical hazards.
	Soft Conversion Reagent B	No known significant effects or critical hazards.
	Soft Conversion Binding Beads	Causes severe burns.
	5X Soft Conversion Wash Buffer	No known significant effects or critical hazards.
	Soft Conversion Elution Buffer	Causes severe burns.
	Soft Conversion Repair Solution	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Avida Index Primer Pairs 97-192 for ILM	No known significant effects or critical hazards.
Eye contact	: Nuclease-Free Water	No known significant effects or critical hazards.
	End Prep Buffer	No known significant effects or critical hazards.
	End Prep Enzyme	No known significant effects or critical hazards.
	Ligation Buffer	No known significant effects or critical hazards.
	Ligation Enzyme	No known significant effects or critical hazards.
	Adapter for ILM	No known significant effects or critical hazards.
	Hyb Blocker	No known significant effects or critical hazards.
	Hyb Buffer	No known significant effects or critical hazards.
	Hyb Enhancer	No known significant effects or critical hazards.
	Soft Conversion Reagent A	Causes serious eye irritation.
	2X Methyl Amplification Mastermix	No known significant effects or critical hazards.
	Library Wash Buffer	No known significant effects or critical hazards.
	Hyb Wash Buffer 1	No known significant effects or critical hazards.
	Hyb Wash Buffer 2	No known significant effects or critical hazards.
	Soft Conversion Reagent B	Causes serious eye irritation.
	Soft Conversion Binding Beads	Causes serious eye damage.
	5X Soft Conversion Wash Buffer	No known significant effects or critical hazards.
	Soft Conversion Elution Buffer	Causes serious eye damage.
	Soft Conversion Repair Solution	No known significant effects or critical hazards.
	Library Binding Beads	No known significant effects or critical hazards.
	Capture Beads	No known significant effects or critical hazards.
	Avida Index Primer Pairs	No known significant effects or critical hazards.

SECTION 11: Toxicological information

97-192 for ILM

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	:	Nuclease-Free Water	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
		Soft Conversion Reagent A	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		2X Methyl Amplification Mastermix	No specific data.
		Library Wash Buffer	No specific data.
		Hyb Wash Buffer 1	No specific data.
		Hyb Wash Buffer 2	No specific data.
		Soft Conversion Reagent B	No specific data.
		Soft Conversion Binding Beads	Adverse symptoms may include the following: respiratory tract irritation coughing
		5X Soft Conversion Wash Buffer	No specific data.
		Soft Conversion Elution Buffer	No specific data.
		Soft Conversion Repair Solution	No specific data.
		Library Binding Beads	No specific data.
	Capture Beads	No specific data.	
	Avida Index Primer Pairs 97-192 for ILM	No specific data.	
Ingestion	:	Nuclease-Free Water	No specific data.
		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
		Soft Conversion Reagent A	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		2X Methyl Amplification Mastermix	No specific data.
		Library Wash Buffer	No specific data.
		Hyb Wash Buffer 1	No specific data.
		Hyb Wash Buffer 2	No specific data.
	Soft Conversion	No specific data.	

SECTION 11: Toxicological information

	Reagent B	
	Soft Conversion Binding Beads	Adverse symptoms may include the following: stomach pains
	5X Soft Conversion Wash Buffer	No specific data.
	Soft Conversion Elution Buffer	Adverse symptoms may include the following: stomach pains
	Soft Conversion Repair Solution	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Avida Index Primer Pairs 97-192 for ILM	No specific data.
Skin contact	: Nuclease-Free Water	No specific data.
	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
	Soft Conversion Reagent A	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	2X Methyl Amplification Mastermix	No specific data.
	Library Wash Buffer	No specific data.
	Hyb Wash Buffer 1	No specific data.
	Hyb Wash Buffer 2	No specific data.
	Soft Conversion Reagent B	No specific data.
	Soft Conversion Binding Beads	Adverse symptoms may include the following: pain or irritation redness blistering may occur
	5X Soft Conversion Wash Buffer	No specific data.
	Soft Conversion Elution Buffer	Adverse symptoms may include the following: pain or irritation redness blistering may occur
	Soft Conversion Repair Solution	No specific data.
	Library Binding Beads	No specific data.
	Capture Beads	No specific data.
	Avida Index Primer Pairs 97-192 for ILM	No specific data.

SECTION 11: Toxicological information

Eye contact	: Nuclease-Free Water End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: pain or irritation watering redness
	Hyb Enhancer Soft Conversion Reagent A	No specific data. Adverse symptoms may include the following: pain or irritation watering redness
	2X Methyl Amplification Mastermix Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Soft Conversion Reagent B	No specific data. No specific data. No specific data. Adverse symptoms may include the following: pain or irritation watering redness
	Soft Conversion Binding Beads	Adverse symptoms may include the following: pain watering redness
	5X Soft Conversion Wash Buffer Soft Conversion Elution Buffer	No specific data. Adverse symptoms may include the following: pain watering redness
	Soft Conversion Repair Solution Library Binding Beads Capture Beads Avida Index Primer Pairs 97-192 for ILM	No specific data. No specific data. No specific data. No specific data.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

SECTION 11: Toxicological information

General	:	Nuclease-Free Water	No known significant effects or critical hazards.	
		End Prep Buffer	No known significant effects or critical hazards.	
		End Prep Enzyme	No known significant effects or critical hazards.	
		Ligation Buffer	No known significant effects or critical hazards.	
		Ligation Enzyme	No known significant effects or critical hazards.	
		Adapter for ILM	No known significant effects or critical hazards.	
		Hyb Blocker	No known significant effects or critical hazards.	
		Hyb Buffer	No known significant effects or critical hazards.	
		Hyb Enhancer	May cause damage to organs through prolonged or repeated exposure.	
		Soft Conversion Reagent A	No known significant effects or critical hazards.	
		2X Methyl Amplification Mastermix	No known significant effects or critical hazards.	
		Library Wash Buffer	No known significant effects or critical hazards.	
		Hyb Wash Buffer 1	No known significant effects or critical hazards.	
		Hyb Wash Buffer 2	No known significant effects or critical hazards.	
		Soft Conversion Reagent B	No known significant effects or critical hazards.	
		Soft Conversion Binding Beads	No known significant effects or critical hazards.	
		5X Soft Conversion Wash Buffer	No known significant effects or critical hazards.	
		Soft Conversion Elution Buffer	No known significant effects or critical hazards.	
		Soft Conversion Repair Solution	No known significant effects or critical hazards.	
		Library Binding Beads	No known significant effects or critical hazards.	
		Capture Beads	No known significant effects or critical hazards.	
		Avida Index Primer Pairs 97-192 for ILM	No known significant effects or critical hazards.	
	Carcinogenicity	:	Nuclease-Free Water	No known significant effects or critical hazards.
			End Prep Buffer	No known significant effects or critical hazards.
			End Prep Enzyme	No known significant effects or critical hazards.
			Ligation Buffer	No known significant effects or critical hazards.
			Ligation Enzyme	No known significant effects or critical hazards.
		Adapter for ILM	No known significant effects or critical hazards.	
		Hyb Blocker	No known significant effects or critical hazards.	
		Hyb Buffer	No known significant effects or critical hazards.	
		Hyb Enhancer	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.	
		Soft Conversion Reagent A	No known significant effects or critical hazards.	
		2X Methyl Amplification Mastermix	No known significant effects or critical hazards.	
		Library Wash Buffer	No known significant effects or critical hazards.	
		Hyb Wash Buffer 1	No known significant effects or critical hazards.	
		Hyb Wash Buffer 2	No known significant effects or critical hazards.	
		Soft Conversion Reagent B	No known significant effects or critical hazards.	
		Soft Conversion Binding Beads	No known significant effects or critical hazards.	
		5X Soft Conversion Wash Buffer	No known significant effects or critical hazards.	
		Soft Conversion Elution Buffer	No known significant effects or critical hazards.	
		Soft Conversion Repair Solution	No known significant effects or critical hazards.	
		Library Binding Beads	No known significant effects or critical hazards.	
		Capture Beads	No known significant effects or critical hazards.	
		Avida Index Primer Pairs 97-192 for ILM	No known significant effects or critical hazards.	

SECTION 11: Toxicological information

Mutagenicity	:	Nuclease-Free Water	No known significant effects or critical hazards.
		End Prep Buffer	No known significant effects or critical hazards.
		End Prep Enzyme	No known significant effects or critical hazards.
		Ligation Buffer	No known significant effects or critical hazards.
		Ligation Enzyme	No known significant effects or critical hazards.
		Adapter for ILM	No known significant effects or critical hazards.
		Hyb Blocker	No known significant effects or critical hazards.
		Hyb Buffer	No known significant effects or critical hazards.
		Hyb Enhancer	No known significant effects or critical hazards.
		Soft Conversion	No known significant effects or critical hazards.
		Reagent A	
		2X Methyl Amplification	No known significant effects or critical hazards.
		Mastermix	
		Library Wash Buffer	No known significant effects or critical hazards.
		Hyb Wash Buffer 1	No known significant effects or critical hazards.
		Hyb Wash Buffer 2	No known significant effects or critical hazards.
		Soft Conversion	No known significant effects or critical hazards.
		Reagent B	
		Soft Conversion Binding	No known significant effects or critical hazards.
		Beads	
		5X Soft Conversion	No known significant effects or critical hazards.
		Wash Buffer	
		Soft Conversion Elution	No known significant effects or critical hazards.
		Buffer	
		Soft Conversion Repair	No known significant effects or critical hazards.
		Solution	
	Library Binding Beads	No known significant effects or critical hazards.	
	Capture Beads	No known significant effects or critical hazards.	
	Avida Index Primer Pairs	No known significant effects or critical hazards.	
	97-192 for ILM		
Reproductive toxicity	:	Nuclease-Free Water	No known significant effects or critical hazards.
		End Prep Buffer	No known significant effects or critical hazards.
		End Prep Enzyme	No known significant effects or critical hazards.
		Ligation Buffer	No known significant effects or critical hazards.
		Ligation Enzyme	No known significant effects or critical hazards.
		Adapter for ILM	No known significant effects or critical hazards.
		Hyb Blocker	No known significant effects or critical hazards.
		Hyb Buffer	No known significant effects or critical hazards.
		Hyb Enhancer	May damage fertility or the unborn child.
		Soft Conversion	May damage fertility. May damage the unborn child.
		Reagent A	
		2X Methyl Amplification	No known significant effects or critical hazards.
		Mastermix	
		Library Wash Buffer	No known significant effects or critical hazards.
		Hyb Wash Buffer 1	No known significant effects or critical hazards.
		Hyb Wash Buffer 2	No known significant effects or critical hazards.
		Soft Conversion	No known significant effects or critical hazards.
		Reagent B	
		Soft Conversion Binding	No known significant effects or critical hazards.
		Beads	
		5X Soft Conversion	No known significant effects or critical hazards.
		Wash Buffer	
		Soft Conversion Elution	No known significant effects or critical hazards.
		Buffer	
		Soft Conversion Repair	No known significant effects or critical hazards.
		Solution	
	Library Binding Beads	No known significant effects or critical hazards.	
	Capture Beads	No known significant effects or critical hazards.	
	Avida Index Primer Pairs	No known significant effects or critical hazards.	
	97-192 for ILM		

SECTION 11: Toxicological information

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

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
End Prep Buffer Magnesium chloride	Acute EC50 >100 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Acute EC50 180000 µg/l Fresh water	Crustaceans - Calanoid copepod - <i>Eudiaptomus padanus ssp. padanus</i> - Adult	48 hours
	Acute IC50 6.8 mg/l Fresh water	Aquatic plants - Lesser Duckweed - <i>Lemna aequinoctialis</i>	96 hours
	Acute LC50 32000 µg/l Fresh water	Daphnia - Water flea - <i>Daphnia hyalina</i> - Adult	48 hours
	Acute LC50 2120 mg/l Fresh water	Fish - Fathead minnow - <i>Pimephales promelas</i>	96 hours
	Acute NOEC 100 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Chronic NOEC 0.1 mg/l Fresh water	Fish - common carp - <i>Cyprinus carpio</i>	35 days
End Prep Enzyme Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours
Ligation Enzyme Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours
Hyb Buffer tetramethylammonium chloride Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Acute LC50 462 mg/l Fresh water	Fish - Fathead minnow - <i>Pimephales promelas</i>	96 hours
	Acute EC50 210 µg/l Fresh water	Algae - Green algae - <i>Selenastrum sp.</i>	96 hours
	Acute LC50 10800 µg/l Marine water	Crustaceans - Aesop shrimp - <i>Pandalus montagui</i> - Adult	48 hours
	Acute LC50 2.518 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i>	48 hours
	Acute LC50 7200 µg/l Fresh water	Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>	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
	Acute LC50 6569 mg/l Fresh water	Fish	96 hours
	Acute NOEC 4640 mg/l Fresh water	Algae	72 hours
	Acute NOEC 4640 mg/l Fresh water	Fish	96 hours
Soft Conversion Reagent A tetrahydro-2-furyl-methanol	Acute EC50 >98.9 mg/l	Algae - Algae	72 hours
	Acute EC50 >91.7 mg/l	Daphnia - Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 >101 mg/l	Fish - Goldfish	96 hours

SECTION 12: Ecological information

Soft Conversion Binding Beads ethanol Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Acute EC50 3306 mg/l Marine water	Algae - Green algae - <i>Ulva pertusa</i>	96 hours
	Acute EC50 1074 mg/l Fresh water	Crustaceans - Ostracod - <i>Cypris subglobosa</i>	48 hours
	Acute EC50 2 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i>	48 hours
	Acute LC50 11000000 µg/l Marine water	Fish - Bleak - <i>Alburnus alburnus</i>	96 hours
	Chronic NOEC 4.995 mg/l Marine water	Algae - Green algae - <i>Ulva pertusa</i>	96 hours
	Chronic NOEC 100 µl/L Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	21 days
	Acute EC50 210 µg/l Fresh water	Algae - Green algae - <i>Selenastrum sp.</i>	96 hours
	Acute LC50 10800 µg/l Marine water	Crustaceans - Aesop shrimp - <i>Pandalus montagui</i> - Adult	48 hours
	Acute LC50 2.518 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i>	48 hours
	Acute LC50 7200 µg/l Fresh water	Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
End Prep Enzyme Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Ligation Enzyme Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Hyb Enhancer Formamide	OECD 301A Ready Biodegradability - DOC Die-Away Test	99 % - Readily - 28 days	-	-
Soft Conversion Reagent A tetrahydro-2-furyl-methanol	-	92 % - Readily - 28 days	-	-
Soft Conversion Binding Beads salts of thiocyanic acid	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	46 % - Inherent - 28 days	-	-

Conclusion/Summary : Not available.

SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Nuclease-Free Water water	-	-	Readily
Hyb Buffer tetramethylammonium chloride	-	-	Readily
Hyb Enhancer Formamide	-	-	Readily
Soft Conversion Reagent A tetrahydro-2-furyl-methanol	-	-	Readily
Soft Conversion Binding Beads ethanol	-	-	Readily
salts of thiocyanic acid	-	-	Inherent

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Nuclease-Free Water water	-1.38	-	Low
End Prep Enzyme Glycerol	-1.76	-	Low
Ligation Enzyme Glycerol	-1.76	-	Low
Hyb Buffer tetramethylammonium chloride	<-1.6	-	Low
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	2.7	78.67	Low
Hyb Enhancer Formamide	-0.82	-	Low
Soft Conversion Reagent A tetrahydro-2-furyl-methanol	0.722	-	Low
Soft Conversion Binding Beads ethanol	-0.35	0.5	Low
salts of thiocyanic acid	<-1.7	-	Low
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	2.7	78.67	Low

12.4 Mobility in soil

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

Mobility : Not available.

SECTION 12: Ecological information

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Nuclease-Free Water water	Not applicable (Inorganic)	N/A	N/A	N/A	Not applicable (Inorganic)	N/A	N/A

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : 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.




Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : Dispose of material(s) and residues under controlled conditions. 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

	ADR/RID	IMDG	IATA
14.1 UN number	UN3316	UN3316	UN3316
14.2 UN proper shipping name	CHEMICAL KIT	CHEMICAL KIT	Chemical kit
14.3 Transport hazard class(es)	9 	9 	9 
14.4 Packing group	II	II	II
14.5 Environmental hazards	No.	No.	No.

Additional information

Remarks: Excepted Quantity

ADR/RID : **Hazard identification number** 90
Limited quantity See SP 251
Special provisions 251, 340, 671
Tunnel code (E)

IMDG : **Emergency schedules** F-A, _S-P_
Special provisions 251, 340

SECTION 14: Transport information

IATA : **Quantity limitation** Passenger and Cargo Aircraft: 10 kg. Packaging instructions: 960. Cargo Aircraft Only: 10 kg. Packaging instructions: 960. Limited Quantities - Passenger Aircraft: 1 kg. Packaging instructions: Y960.
Special provisions A44, A163

14.6 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.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Hyb Buffer Substance of equivalent concern for environment	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated covering well-defined substances and UVCB substances, polymers and homologues	Candidate	-	12/19/2012
Hyb Enhancer Toxic to reproduction	formamide	Candidate	-	6/18/2012
Soft Conversion Binding Beads Substance of equivalent concern for environment	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated covering well-defined substances and UVCB substances, polymers and homologues	Candidate	-	12/19/2012

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

SECTION 15: Regulatory information

Product / Ingredient name	Identifiers	Status
End Prep Buffer End Prep Buffer		3
Hyb Buffer Hyb Buffer		3
Hyb Enhancer Hyb Enhancer		3
Formamide		30
Soft Conversion Reagent A Soft Conversion Reagent A		3
tetrahydro-2-furyl-methanol		30
Soft Conversion Reagent B Soft Conversion Reagent B ammonium hydrogensulphite		3 65
Soft Conversion Binding Beads Soft Conversion Binding Beads		3
Soft Conversion Elution Buffer Soft Conversion Elution Buffer		3

Label	:	Nuclease-Free Water	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	Restricted to professional users.
		Soft Conversion Reagent A	Restricted to professional users.
		2X Methyl Amplification	Not applicable.
		Mastermix	
		Library Wash Buffer	Not applicable.
		Hyb Wash Buffer 1	Not applicable.
		Hyb Wash Buffer 2	Not applicable.
		Soft Conversion Reagent B	Not applicable.
		Soft Conversion Binding Beads	Not applicable.
		5X Soft Conversion Wash Buffer	Not applicable.
		Soft Conversion Elution Buffer	Not applicable.
		Soft Conversion Repair Solution	Not applicable.
		Library Binding Beads	Not applicable.
		Capture Beads	Not applicable.
		Avida Index Primer Pairs 97-192 for ILM	Not applicable.

Seveso Directive

This product is not controlled under the Seveso Directive.

Danger criteria

SECTION 15: Regulatory information

Category

Hyb Buffer

H3

Soft Conversion Binding Beads

P5c

E1

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

United States : Not determined.

SECTION 16: Other information

🔍 Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

SECTION 16: Other information

Classification	Justification
End Prep Buffer Aquatic Chronic 3, H412	Calculation method
Hyb Buffer Acute Tox. 4, H302 Skin Irrit. 2, H315 STOT SE 1, H370 Aquatic Chronic 3, H412	Calculation method Calculation method Calculation method Calculation method
Hyb Enhancer Carc. 2, H351 Repr. 1B, H360 STOT RE 2, H373	Calculation method Calculation method Calculation method
Soft Conversion Reagent A Eye Irrit. 2, H319 Repr. 1B, H360FD	Calculation method Calculation method
Soft Conversion Reagent B Eye Irrit. 2, H319	Calculation method
Soft Conversion Binding Beads Flam. Liq. 3, H226 Skin Corr. 1C, H314 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	On basis of test data Calculation method Calculation method Calculation method
Soft Conversion Elution Buffer Skin Corr. 1, H314	On basis of test data

Full text of abbreviated H statements

End Prep Buffer	
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Hyb Buffer	
H300	Fatal if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H370	Causes damage to organs.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Hyb Enhancer	
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
Soft Conversion Reagent A	
H319	Causes serious eye irritation.
H360FD	May damage fertility. May damage the unborn child.
Soft	

SECTION 16: Other information**Conversion****Reagent B**

H319 Causes serious eye irritation.
 EUH031 Contact with acids liberates toxic gas.

Soft**Conversion****Binding Beads**

H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.
 EUH032 Contact with acids liberates very toxic gas.
 EUH071 Corrosive to the respiratory tract.

Soft**Conversion****Elution Buffer**

H314 Causes severe skin burns and eye damage.

Full text of classifications**End Prep Buffer**

Aquatic Chronic 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
 Aquatic Chronic 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

Hyb Buffer

Acute Tox. 2 ACUTE TOXICITY - Category 2
 Acute Tox. 3 ACUTE TOXICITY - Category 3
 Acute Tox. 4 ACUTE TOXICITY - Category 4
 Aquatic Acute 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
 Aquatic Chronic 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
 Aquatic Chronic 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
 Aquatic Chronic 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
 Eye Dam. 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
 Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
 Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2
 STOT SE 1 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
 STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Hyb Enhancer

Carc. 2 CARCINOGENICITY - Category 2
 Repr. 1B REPRODUCTIVE TOXICITY - Category 1B
 STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

Soft Conversion**Reagent A**

Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
 Repr. 1B REPRODUCTIVE TOXICITY - Category 1B

Soft Conversion**Reagent B**

Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

Soft Conversion

SECTION 16: Other information

Binding Beads

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2

Soft Conversion

Elution Buffer

Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
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