

SAFETY DATA SHEET



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

Section 1. Identification

1.1 Product identifier

Product name	: Avida Methyl Reagent Kit with 97-192 Index Primer Pairs for ILM, 96 Reactions, Part Number G9429B	
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</u>	
	: <u>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
	Hyb Wash Buffer 1	5271-0131
	Hyb Wash Buffer 2	5271-0132
	<u>Avida Methyl and Duo Reagent Box 3, 96</u>	<u>5282-0150</u>
	: <u>Reactions</u>	
	Soft Conversion Reagent B	5271-0113
	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

Validation date : 4/8/2024

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)

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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](#)

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

[1.4 Emergency telephone number](#)

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

[2.1 Classification of the substance or mixture](#)

OSHA/HCS status	: Nuclease-Free Water	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	End Prep Buffer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	End Prep Enzyme	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	Ligation Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Ligation Enzyme	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	Adapter for ILM	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Hyb Blocker	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Hyb Buffer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	Hyb Enhancer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	Soft Conversion Reagent A	This material is considered hazardous by the OSHA

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2X Methyl Amplification Mastermix	Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Library Wash Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Hyb Wash Buffer 1	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Hyb Wash Buffer 2	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Soft Conversion Reagent B	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Soft Conversion Binding Beads	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
5X Soft Conversion Wash Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Soft Conversion Elution Buffer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Soft Conversion Repair Solution	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Library Binding Beads	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Capture Beads	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Avida Index Primer Pairs 97-192 for ILM	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees

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and other users of this product.

[Classification of the substance or mixture](#)

End Prep Buffer

H412 AQUATIC HAZARD (LONG-TERM) - Category 3

End Prep Enzyme

H320 EYE IRRITATION - Category 2B

Ligation Enzyme

H320 EYE IRRITATION - Category 2B

Hyb Buffer

H302 ACUTE TOXICITY (oral) - Category 4

H315 SKIN IRRITATION - Category 2

H370 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

H412 AQUATIC HAZARD (LONG-TERM) - Category 3

Hyb Enhancer

H351 CARCINOGENICITY - Category 2

H360 TOXIC TO REPRODUCTION - Category 1B

H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Soft Conversion Reagent A

H227 FLAMMABLE LIQUIDS - Category 4

H319 EYE IRRITATION - Category 2A

H360 TOXIC TO REPRODUCTION - Category 1B

Soft Conversion Reagent B

H319 EYE IRRITATION - Category 2A

Soft Conversion Binding Beads

H226 FLAMMABLE LIQUIDS - Category 3

H314 SKIN CORROSION - Category 1C

H318 SERIOUS EYE DAMAGE - Category 1

H400 AQUATIC HAZARD (ACUTE) - Category 1

H411 AQUATIC HAZARD (LONG-TERM) - Category 2

Soft Conversion Elution Buffer

H314 SKIN CORROSION - Category 1

H318 SERIOUS EYE DAMAGE - Category 1

Ingredients of unknown toxicity	: Hyb Buffer	Percentage of the mixture consisting of ingredient (s) of unknown acute oral toxicity: 1 - 10%
	Hyb Buffer	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 3.4%
	2X Methyl Amplification Mastermix	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 10%
	Soft Conversion Reagent B	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 70%

[2.2 GHS label elements](#)

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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	Warning
Ligation Buffer	No signal word.
Ligation Enzyme	Warning
Adapter for ILM	No signal word.
Hyb Blocker	No signal word.
Hyb Buffer	Danger
Hyb Enhancer	Danger
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.

Hazard statements

Nuclease-Free Water	No known significant effects or critical hazards.
End Prep Buffer	H412 - Harmful to aquatic life with long lasting effects.
End Prep Enzyme	H320 - Causes eye irritation.
Ligation Buffer	No known significant effects or critical hazards.
Ligation Enzyme	H320 - Causes eye irritation.
Adapter for ILM	No known significant effects or critical hazards.

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Hyb Blocker Hyb Buffer	No known significant effects or critical hazards. H302 - Harmful if swallowed. H315 - Causes skin irritation. H370 - Causes damage to organs. (central nervous system (CNS)) H412 - Harmful to aquatic life with long lasting effects.
Hyb Enhancer	H351 - Suspected of causing cancer. H360 - May damage fertility or the unborn child. H373 - May cause damage to organs through prolonged or repeated exposure. (blood) H227 - Combustible liquid. H319 - Causes serious eye irritation. H360 - May damage fertility or the unborn child.
Soft Conversion Reagent A	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. H319 - Causes serious eye irritation. H226 - Flammable liquid and vapor. H314 - Causes severe skin burns and eye damage. H400 - Very toxic to aquatic life. H411 - Toxic to aquatic life with long lasting effects.
2X Methyl Amplification Mastermix Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Soft Conversion Reagent B Soft Conversion Binding Beads	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. H319 - Causes serious eye irritation. H226 - Flammable liquid and vapor. H314 - Causes severe skin burns and eye damage. H400 - Very toxic to aquatic life. H411 - Toxic to aquatic life with long lasting effects.
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	No known significant effects or critical hazards. H314 - Causes severe skin burns and eye damage. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Precautionary statements

Prevention

: Nuclease-Free Water 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. Not applicable. P280 - Wear protective gloves. P273 - Avoid release to the environment. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash thoroughly after handling.
Hyb Enhancer	P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection. P260 - Do not breathe vapor.
Soft Conversion Reagent A	P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection. P210 - Keep away from flames and hot surfaces. No smoking.
2X Methyl Amplification Mastermix Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Soft Conversion Reagent B Soft Conversion Binding Beads	Not applicable. Not applicable. Not applicable. Not applicable. P280 - Wear eye or face protection. P280 - Wear protective gloves, protective clothing and eye or face protection.

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		P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
		P241 - Use explosion-proof electrical, ventilating or lighting equipment.
		P242 - Use non-sparking tools.
		P243 - Take action to prevent static discharges.
		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.
Response	: Nuclease-Free Water	Not applicable.
	End Prep Buffer	Not applicable.
	End Prep Enzyme	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P337 + P313 - If eye irritation persists: Get medical advice or attention.
	Ligation Buffer	Not applicable.
	Ligation Enzyme	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P337 + P313 - If eye irritation persists: Get medical advice or attention.
	Adapter for ILM	Not applicable.
	Hyb Blocker	Not applicable.
	Hyb Buffer	P308 + P311 - IF exposed: Call a POISON CENTER or doctor.
		P362 + P364 - Take off contaminated clothing and wash it before reuse.
		P302 + P352 - IF ON SKIN: Wash with plenty of water.
	Hyb Enhancer	P308 + P313 - IF exposed or concerned: Get medical advice or attention.
	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.

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		P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor.
		P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
		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.
		P363 - Wash contaminated clothing before reuse.
		P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
		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.
		P363 - Wash contaminated clothing before reuse.
		P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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 97-192 for ILM	Not applicable.
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 Reagent A	P403 + P235 - Store in a well-ventilated place. Keep cool.
	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	P403 + P235 - Store in a well-ventilated place. Keep cool.
	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	Not applicable.

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	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 Reagent A	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	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	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	5X Soft Conversion Wash Buffer	Not applicable.
Soft Conversion Elution Buffer	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.	
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.	
Supplemental label elements	: 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 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	Keep container tightly closed. Do not breathe vapor or spray. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.
	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.	

Section 2. Hazards identification

Avida Index Primer Pairs 97-192 for ILM None known.

2.3 Other hazards

Hazards not otherwise classified

: 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 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	Causes respiratory tract burns. Causes digestive tract burns.
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.

Section 3. Composition/information on ingredients

Substance/mixture	:	Nuclease-Free Water	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

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Ingredient name	%	CAS number
Nuclease-Free Water		
water	100	7732-18-5
End Prep Buffer		
Magnesium chloride	<2.5	7786-30-3
End Prep Enzyme		
Glycerol	≥50 - ≤75	56-81-5
Ligation Enzyme		
Glycerol	≥50 - ≤75	56-81-5
Hyb Buffer		
tetramethylammonium chloride	≥10 - <15	75-57-0
Dextran sulfate sodium	≤3	9011-18-1
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	<0.1	9036-19-5
Hyb Enhancer		
Formamide	≥90	75-12-7
Soft Conversion Reagent A		
tetrahydro-2-furylmethanol	≥90	97-99-4
Hyb Wash Buffer 1		
Sodium dodecyl sulphate	≤0.3	151-21-3
Hyb Wash Buffer 2		
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	<0.1	9036-19-5
Soft Conversion Reagent B		
ammonium hydrogensulphite	≥50 - ≤75	10192-30-0
Soft Conversion Binding Beads		
Ethanol	≥50 - ≤75	64-17-5
Guanidinium thiocyanate	≥10 - ≤21	593-84-0

Section 3. Composition/information on ingredients

Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	≤6.5	9036-19-5
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Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	Ligation Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Ligation Enzyme	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	Adapter for ILM	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Hyb Blocker	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Hyb Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician.
	Hyb Enhancer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	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 Mastermix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

Section 4. First aid measures

Library Wash Buffer	Check for and remove any contact lenses. Get medical attention if irritation occurs. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
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

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End Prep Enzyme	<p>may need to be kept under medical surveillance for 48 hours.</p> <p>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.</p>
Ligation Buffer	<p>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.</p>
Ligation Enzyme	<p>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.</p>
Adapter for ILM	<p>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</p>
Hyb Blocker	<p>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</p>
Hyb Buffer	<p>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.</p>
Hyb Enhancer	<p>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</p>

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	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 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

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	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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ligation Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ligation Enzyme	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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Adapter for ILM	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Hyb Blocker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Hyb Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Hyb Enhancer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
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

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Ingestion

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

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Adapter for ILM	tight clothing such as a collar, tie, belt or waistband. Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
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. 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

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	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,

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Soft Conversion Repair Solution	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. 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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

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	Causes eye irritation.
Ligation Buffer	No known significant effects or critical hazards.
Ligation Enzyme	Causes eye irritation.
Adapter for ILM	No known significant effects or critical hazards.
Hyb Blocker	No known significant effects or critical hazards.
Hyb Buffer	No known significant effects or critical hazards.
Hyb Enhancer	No known significant effects or critical hazards.
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 97-192 for ILM	No known significant effects or critical hazards.

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Inhalation	<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"> No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes damage to organs following a single exposure if inhaled. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Corrosive to the respiratory system. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	<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"> No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes severe burns. No known significant effects or critical hazards. Causes severe burns. 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.
Ingestion	<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 	<ul style="list-style-type: none"> No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Harmful if swallowed. Causes damage to organs following a single exposure if swallowed. No known significant effects or critical hazards. No known significant effects or critical hazards.

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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	May cause burns to mouth, throat and stomach. 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.
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.

Over-exposure signs/symptoms

Eye contact

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

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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 fetal weight increase in fetal deaths skeletal malformations
Soft Conversion Reagent A	Adverse symptoms may include the following: reduced fetal weight increase in fetal 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 fetal weight increase in fetal deaths skeletal malformations
Soft Conversion Reagent A	Adverse symptoms may include the following: reduced fetal weight increase in fetal 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:

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Ingestion

		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.
	: 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 fetal weight increase in fetal deaths skeletal malformations
	Soft Conversion Reagent A	Adverse symptoms may include the following: reduced fetal weight increase in fetal 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 97-192 for ILM	No specific data.

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

Notes to physician

: Nuclease-Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
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

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	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.

Section 4. First aid measures

Specific treatments	: 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	No specific treatment. No specific treatment.
Protection of first-aiders	: 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	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. 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. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. 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. 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. 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

Section 4. First aid measures

	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.
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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

: Nuclease-Free Water	Use an extinguishing agent suitable for the surrounding fire.
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.

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Hyb Enhancer	surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Soft Conversion Reagent A	Use dry chemical, CO ₂ , water spray (fog) or foam.
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.
Soft Conversion Reagent A	Do not use water jet.
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

Specific hazards arising from the chemical	: Nuclease-Free Water	In a fire or if heated, a pressure increase will occur and the container may burst.
	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

Section 5. Fire-fighting measures

End Prep Enzyme	any waterway, sewer or drain. 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	Combustible liquid. 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.
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 vapor. 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 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.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products	: Nuclease-Free Water End Prep Buffer	No specific data. 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 Hyb Blocker Hyb Buffer	No specific data. No specific data. 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 metal oxide/oxides
	Hyb Wash Buffer 2 Soft Conversion Reagent B	No specific data. Decomposition products may include the following materials: nitrogen oxides sulfur oxides

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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

Section 5. Fire-fighting measures

Soft Conversion Reagent A	without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
2X Methyl Amplification Mastermix	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Library 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.

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Special protective equipment for fire-fighters	: Nuclease-Free Water	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	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.
	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.

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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.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Nuclease-Free Water	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	End Prep Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	End Prep Enzyme	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Ligation Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	Ligation Enzyme	No action shall be taken involving any personal

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Adapter for ILM	<p>risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p> <p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.</p>
Hyb Blocker	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.</p>
Hyb Buffer	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
Hyb Enhancer	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
Soft Conversion Reagent A	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
2X Methyl Amplification Mastermix	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.</p>
Library Wash Buffer	<p>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.</p>

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Hyb Wash Buffer 1	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
Hyb Wash Buffer 2	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
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 spilled material. Avoid breathing vapor 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 unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor 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 spilled 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 spilled material. Do not breathe vapor 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 spilled material. Put on appropriate personal protective equipment.
Library Binding Beads	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
Capture Beads	No action shall be taken involving any personal risk or without suitable training. Evacuate

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<p>Avida Index Primer Pairs 97-192 for ILM</p>	<p>surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.</p>
<p>For emergency responders : Nuclease-Free Water</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>End Prep Buffer</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>End Prep Enzyme</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>Ligation Buffer</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>Ligation Enzyme</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>Adapter for ILM</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>Hyb Blocker</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>Hyb Buffer</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>Hyb Enhancer</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>Soft Conversion Reagent A</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>2X Methyl Amplification Mastermix</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>Library Wash Buffer</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
<p>Hyb Wash Buffer 1</p>	<p>If specialized clothing is required to deal with the spillage, take note of any information in Section 8</p>

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

6.2 Environmental precautions

: Nuclease-Free Water	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
End Prep Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
End Prep Enzyme	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Ligation Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers,

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Ligation Enzyme	waterways, soil or air). Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Adapter for ILM	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hyb Blocker	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hyb Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Hyb Enhancer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Soft Conversion Reagent A	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
2X Methyl Amplification Mastermix	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Library Wash Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hyb Wash Buffer 1	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hyb Wash Buffer 2	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Soft Conversion Reagent B	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Soft Conversion Binding Beads	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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	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 spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Soft Conversion Elution Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Soft Conversion Repair Solution	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Library Binding Beads	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Capture Beads	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Avida Index Primer Pairs 97-192 for ILM	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Nuclease-Free Water

	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.

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

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	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. Dispose of via a licensed waste disposal contractor.
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. Move containers from spill area. 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. 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, 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.

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 vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	End Prep Enzyme	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Ligation Buffer	Put on appropriate personal protective equipment (see Section 8).
	Ligation Enzyme	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Adapter for ILM	Put on appropriate personal protective equipment (see Section 8).
	Hyb Blocker	Put on appropriate personal protective equipment (see Section 8).
	Hyb Buffer	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Hyb Enhancer	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Soft Conversion Reagent A	Put on appropriate personal protective equipment

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	(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 vapor or mist. 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. 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 vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
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 vapor 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 vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in

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

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Hyb Buffer	before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Hyb Enhancer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
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 and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Library Wash Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Hyb Wash Buffer 1	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Hyb Wash Buffer 2	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
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

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5X Soft Conversion Wash Buffer

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

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

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 97-192 for ILM

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

7.2 Conditions for safe storage, including any incompatibilities

: Nuclease-Free Water

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

End Prep Buffer

Store in accordance with local regulations. Store in

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End Prep Enzyme

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

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

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

Ligation Enzyme

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

Adapter for ILM

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

Hyb Blocker

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

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Hyb Buffer

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

Hyb Enhancer

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

Soft Conversion Reagent A

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

Library Wash Buffer

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

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Hyb Wash Buffer 1

opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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

Hyb Wash Buffer 2

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

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 unlabeled 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 oxidizing 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 unlabeled 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 unlabeled

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Soft Conversion Elution Buffer

containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. 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 unlabeled containers.

Soft Conversion Repair Solution

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

Library Binding Beads

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

Capture Beads

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

Avida Index Primer Pairs 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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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 Reagent A	Industrial applications, Professional applications.
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 Reagent B	Industrial applications, Professional applications.
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 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.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Nuclease-Free Water water	None.
End Prep Buffer Magnesium chloride	None.
End Prep Enzyme Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust CAL OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: respirable fraction TWA: 10 mg/m ³ 8 hours. Form: total dust
Ligation Enzyme Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 10 mg/m ³ 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust CAL OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: respirable fraction TWA: 10 mg/m ³ 8 hours. Form: total dust
Hyb Buffer tetramethylammonium chloride Dextran sulfate sodium Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	None. None. None.
Hyb Enhancer Formamide	ACGIH TLV (United States, 1/2023). Absorbed through skin. TWA: 1 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 20 ppm 8 hours. TWA: 30 mg/m ³ 8 hours. STEL: 30 ppm 15 minutes. STEL: 45 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2020). Absorbed through skin. TWA: 10 ppm 10 hours. TWA: 15 mg/m ³ 10 hours. CAL OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 18 mg/m ³ 8 hours. TWA: 10 ppm 8 hours.

Section 8. Exposure controls/personal protection

<p>Soft Conversion Reagent A tetrahydro-2-furylmethanol</p>	<p>OARS WEEL (United States, 4/2022). Absorbed through skin. TWA: 0.5 ppm 8 hours.</p>
<p>Hyb Wash Buffer 1 Sodium dodecyl sulphate</p>	<p>None.</p>
<p>Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-</p>	<p>None.</p>
<p>Soft Conversion Reagent B ammonium hydrogensulphite</p>	<p>None.</p>
<p>Soft Conversion Binding Beads Ethanol</p>	<p>ACGIH TLV (United States, 1/2023). STEL: 1000 ppm 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. NIOSH REL (United States, 10/2020). TWA: 1000 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. CAL OSHA PEL (United States, 5/2018). TWA: 1900 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.</p>
<p>Guanidinium thiocyanate Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-</p>	<p>None. None.</p>

Biological exposure indices

No exposure indices known.

8.2 Exposure controls

Appropriate engineering controls

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

Environmental exposure controls

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

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Section 8. Exposure controls/personal protection

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state	: Nuclease-Free Water	Liquid.
	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 Reagent A	Liquid.
	2X Methyl Amplification Mastermix	Liquid. [Clear.]
	Library Wash Buffer	Liquid.
	Hyb Wash Buffer 1	Liquid.
	Hyb Wash Buffer 2	Liquid.
	Soft Conversion Reagent B	Liquid.
	Soft Conversion Binding Beads	Liquid.
	5X Soft Conversion Wash Buffer	Liquid.
	Soft Conversion Elution Buffer	Liquid.
	Soft Conversion Repair Solution	Liquid.
	Library Binding Beads	Liquid.
	Capture Beads	Liquid.
	Avida Index Primer Pairs 97-192 for ILM	Liquid.
Color	: Nuclease-Free Water	Colorless.
	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.

Section 9. Physical and chemical properties and safety characteristics

	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.
Odor	: Nuclease-Free Water	Odorless.
	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.
Odor 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 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 :

Section 9. Physical and chemical properties and safety characteristics

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

Melting point/freezing point	Nuclease-Free Water	0°C (32°F)
	End Prep Buffer	Not available.
	End Prep Enzyme	Not available.
	Ligation Buffer	Not available.
	Ligation Enzyme	Not available.
	Adapter for ILM	0°C (32°F)
	Hyb Blocker	0°C (32°F)
	Hyb Buffer	Not available.
	Hyb Enhancer	Not available.
	Soft Conversion Reagent A	<-120°C (<-184°F)
	2X Methyl Amplification Mastermix	Not available.
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	0°C (32°F)
	Soft Conversion Reagent B	Not available.
	Soft Conversion Binding Beads	Not available.
	5X Soft Conversion Wash Buffer	0°C (32°F)
	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 (32°F)	

Boiling point, initial boiling point, and boiling range	Nuclease-Free Water	100°C (212°F)
	End Prep Buffer	Not available.
	End Prep Enzyme	Not available.
	Ligation Buffer	Not available.
	Ligation Enzyme	Not available.
	Adapter for ILM	100°C (212°F)
	Hyb Blocker	100°C (212°F)
	Hyb Buffer	Not available.
	Hyb Enhancer	Not available.
	Soft Conversion Reagent A	177.7°C (351.9°F)
	2X Methyl Amplification Mastermix	Not available.
	Library Wash Buffer	Not available.
	Hyb Wash Buffer 1	Not available.
	Hyb Wash Buffer 2	100°C (212°F)

Section 9. Physical and chemical properties and safety characteristics

Soft Conversion Reagent B	Not available.
Soft Conversion Binding Beads	Not available.
5X Soft Conversion Wash Buffer	100°C (212°F)
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	100°C (212°F)

Flash point

: 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 (163.4°F)
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 (100 to 141.8°F)
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	°F	Method	°C	°F	Method
End Prep Enzyme						
Glycerol	-	-	-	177	350.6	-
Ligation Enzyme						
Glycerol	-	-	-	177	350.6	-
Hyb Enhancer						
Formamide	150	302	-	152	305.6	DIN EN ISO 2592

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.

Section 9. Physical and chemical properties and safety characteristics

	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.
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 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.
Lower and upper explosion limit/flammability limit	: 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.
Vapor pressure	: Nuclease-Free Water	2.3 kPa (17.5 mm Hg) [room temperature] 12.3 kPa (92.258 mm Hg) [50°C (122°F)]

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Vapor Pressure at 20°C			Vapor 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						
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-furylmethanol	1.4	0.19	-	-	-	-
2X Methyl Amplification Mastermix						

Section 9. Physical and chemical properties and safety characteristics

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						
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	-

Section 9. Physical and chemical properties and safety characteristics

Avida Index Primer Pairs 97-192 for ILM						
water	17.5	2.3	-	92.258	12.3	-

Relative vapor 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.
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.

Section 9. Physical and chemical properties and safety characteristics

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	
	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.

Section 9. Physical and chemical properties and safety characteristics

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.

Auto-ignition temperature : Nuclease-Free Water Not applicable.
 2X Methyl Amplification Mastermix 215°C (419°F)

Ingredient name	°C	°F	Method
End Prep Enzyme			
Glycerol	370	698	-
Ligation Enzyme			
Glycerol	370	698	-
Hyb Enhancer			
Formamide	>500	>932	ASTM D 2155-66
Soft Conversion Reagent A			
tetrahydro-2-furylmethanol	282	539.6	-
Soft Conversion Binding Beads			
Ethanol	455	851	DIN 51794

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.

Section 9. Physical and chemical properties and safety characteristics

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.

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.

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.

Section 10. Stability and reactivity

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 Mastermix	No specific test data related to reactivity available for this product or its ingredients.
Library Wash Buffer	No specific test data related to reactivity available for this product or its ingredients.
Hyb Wash Buffer 1	No specific test data related to reactivity available for this product or its ingredients.
Hyb Wash Buffer 2	No specific test data related to reactivity available for this product or its ingredients.
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.

Section 10. Stability and reactivity

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.
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	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
2X Methyl Amplification Mastermix	No specific data.
Library Wash Buffer	No specific data.

Section 10. Stability and reactivity

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 pressurize, 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.
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 :	Nuclease-Free Water	May react or be incompatible with oxidizing materials.
	End Prep Buffer	May react or be incompatible with oxidizing materials.
	End Prep Enzyme	May react or be incompatible with oxidizing materials.
	Ligation Buffer	May react or be incompatible with oxidizing materials.
	Ligation Enzyme	May react or be incompatible with oxidizing materials.
	Adapter for ILM	May react or be incompatible with oxidizing materials.
	Hyb Blocker	May react or be incompatible with oxidizing materials.
	Hyb Buffer	May react or be incompatible with oxidizing materials.
	Hyb Enhancer	May react or be incompatible with oxidizing materials.
	Soft Conversion Reagent A	Reactive or incompatible with the following materials: oxidizing materials
	2X Methyl Amplification Mastermix	May react or be incompatible with oxidizing materials.
	Library Wash Buffer	May react or be incompatible with oxidizing materials.
	Hyb Wash Buffer 1	May react or be incompatible with oxidizing materials.
	Hyb Wash Buffer 2	May react or be incompatible with oxidizing materials.
	Soft Conversion Reagent B	May react or be incompatible with oxidizing materials.
	Soft Conversion Binding Beads	Reactive or incompatible with the following materials: oxidizing materials
	5X Soft Conversion Wash Buffer	May react or be incompatible with oxidizing materials.
	Soft Conversion Elution Buffer	Reactive or incompatible with the following materials: acids
	Soft Conversion Repair Solution	May react or be incompatible with oxidizing materials.
	Library Binding Beads	May react or be incompatible with oxidizing materials.
	Capture Beads	May react or be incompatible with oxidizing materials.

Section 10. Stability and reactivity

	Avida Index Primer Pairs 97-192 for ILM	May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	: Nuclease-Free Water	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	End Prep Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	End Prep Enzyme	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Ligation Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Ligation Enzyme	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Adapter for ILM	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Blocker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Enhancer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Soft Conversion Reagent A	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	2X Methyl Amplification Mastermix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Library Wash Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Wash Buffer 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hyb Wash Buffer 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	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.	

Section 10. Stability and reactivity

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	-
Ligation Enzyme Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Hyb Buffer tetramethylammonium chloride	LD50 Dermal	Rabbit - Male, Female	200 to 500 mg/kg	-
	LD50 Oral	Rat	50 mg/kg	-
Dextran sulfate sodium	LD50 Oral	Rat	20600 mg/kg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-
Hyb Enhancer Formamide	LC50 Inhalation Dusts and mists LD50 Dermal LD50 Oral	Rat - Male Rabbit Rat	>21 mg/l 17 g/kg 5570 mg/kg	4 hours - -
Hyb Wash Buffer 1 Sodium dodecyl sulphate	LD50 Oral	Rat	1288 mg/kg	-
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-
Soft Conversion Binding Beads Ethanol	LC50 Inhalation Vapor LD50 Oral	Rat Rat	124700 mg/m ³ 7 g/kg	4 hours -
Guanidinium thiocyanate	LC50 Inhalation Dusts and mists LD50 Oral	Rat - Female Rat - Male, Female	3.181 mg/l 593 mg/kg	4 hours -
Poly(oxy-1,2-ethanediyl), . alpha.-[LD50 Oral	Rat	2800 mg/kg	-

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(1,1,3,3-tetramethylbutyl)
phenyl]-.omega.-hydroxy-

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-furylmethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Hyb Wash Buffer 1 Sodium dodecyl sulphate	Eyes - Mild irritant	Rabbit	-	250 ug	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Guinea pig	-	24 hours 25 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Moderate irritant	Mouse	-	24 hours 25 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 25 mg	-
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-
Soft Conversion Binding Beads Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	100 uL	-
Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-

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Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Soft Conversion Binding Beads Ethanol	-	1	-

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Hyb Buffer tetramethylammonium chloride	Category 1	oral	central nervous system (CNS)
Dextran sulfate sodium	Category 3	-	Respiratory tract irritation
Hyb Wash Buffer 1 Sodium dodecyl sulphate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

Not available.

Information on the likely routes of exposure

: Nuclease-Free Water
End Prep Buffer

Not available.

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

End Prep Enzyme

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Ligation Buffer
Ligation Enzyme

Not available.

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Adapter for ILM

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Hyb Blocker
Hyb Buffer

Not available.

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Hyb Enhancer

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Soft Conversion Reagent A

Routes of entry anticipated: Oral, Dermal,

Section 11. Toxicological information

2X Methyl Amplification Mastermix	Inhalation, Eyes. Not available.
Library Wash Buffer	Not available.
Hyb Wash Buffer 1	Not available.
Hyb Wash Buffer 2	Not available.
Soft Conversion Reagent B	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
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.
Library Binding Beads	Not available.
Capture Beads	Not available.
Avida Index Primer Pairs 97-192 for ILM	Not available.

Potential acute health effects

Eye contact

: Nuclease-Free Water	No known significant effects or critical hazards.
End Prep Buffer	No known significant effects or critical hazards.
End Prep Enzyme	Causes eye irritation.
Ligation Buffer	No known significant effects or critical hazards.
Ligation Enzyme	Causes eye irritation.
Adapter for ILM	No known significant effects or critical hazards.
Hyb Blocker	No known significant effects or critical hazards.
Hyb Buffer	No known significant effects or critical hazards.
Hyb Enhancer	No known significant effects or critical hazards.
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 97-192 for ILM	No known significant effects or critical hazards.

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.

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	Soft Conversion Binding Beads	Corrosive to the respiratory system.
	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.
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.
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	May cause burns to mouth, throat and stomach. 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.
	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.

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Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

Nuclease-Free Water	No specific data.
End Prep Buffer	No specific data.
End Prep Enzyme	Adverse symptoms may include the following: irritation watering redness
Ligation Buffer	No specific data.
Ligation Enzyme	Adverse symptoms may include the following: irritation watering redness
Adapter for ILM	No specific data.
Hyb Blocker	No specific data.
Hyb Buffer	Adverse symptoms may include the following: pain or irritation watering redness
Hyb Enhancer	No specific data.
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: 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 fetal weight increase in fetal deaths skeletal malformations
Soft Conversion Reagent A	Adverse symptoms may include the following: reduced fetal weight

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increase in fetal 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 fetal weight increase in fetal deaths skeletal malformations
Soft Conversion Reagent A	Adverse symptoms may include the following: reduced fetal weight increase in fetal 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.

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Ingestion	: Nuclease-Free Water End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
	Soft Conversion Reagent A	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
	2X Methyl Amplification Mastermix Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2 Soft Conversion Reagent B Soft Conversion Binding Beads	No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: stomach pains
	5X Soft Conversion Wash Buffer Soft Conversion Elution Buffer	No specific data. Adverse symptoms may include the following: stomach pains
	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 and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Nuclease-Free Water End Prep Buffer End Prep Enzyme Ligation Buffer Ligation Enzyme Adapter for ILM Hyb Blocker Hyb Buffer Hyb Enhancer	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. May cause damage to organs through prolonged or repeated exposure.
	Soft Conversion Reagent A 2X Methyl Amplification Mastermix Library Wash Buffer Hyb Wash Buffer 1 Hyb Wash Buffer 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

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	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.
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 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

Reproductive toxicity	<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"> No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. May damage fertility or the unborn child. May damage fertility or the unborn child. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
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Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
End Prep Buffer End Prep Buffer Magnesium chloride	229323.3 2800	204752.9 2500	N/A N/A	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 tetramethylammonium chloride Dextran sulfate sodium Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	450.2 50 20600 500	2737.2 300 N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
Hyb Enhancer Formamide	5570	17000	N/A	N/A	N/A
Library Wash Buffer Library Wash Buffer	37635.4	N/A	N/A	N/A	N/A
Hyb Wash Buffer 1 Hyb Wash Buffer 1 Sodium dodecyl sulphate	171428.6 1288	N/A N/A	N/A N/A	N/A N/A	N/A 1.5
Hyb Wash Buffer 2					

Section 11. Toxicological information

Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	500	N/A	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
Guanidinium thiocyanate	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
Library Binding Beads					
Library Binding Beads	17855.8	N/A	N/A	N/A	N/A

Other information

: End Prep Buffer

Adapter for ILM

Hyb Enhancer

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

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

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 - <i>Eudiaptomus padanus ssp. padanus</i> - Adult	48 hours
	Acute IC50 6.8 mg/l Fresh water	Aquatic plants - <i>Lemna aequinoctialis</i>	96 hours
	Acute LC50 32000 µg/l Fresh water	Daphnia - <i>Daphnia hyalina</i> - Adult	48 hours
	Acute LC50 2120 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute NOEC 100 mg/l Fresh water	Algae - <i>Desmodesmus subspicatus</i>	72 hours
	Chronic NOEC 0.1 mg/l Fresh water	Fish - <i>Cyprinus carpio</i>	35 days
End Prep Enzyme			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Ligation Enzyme			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Hyb Buffer			
tetramethylammonium chloride	Acute LC50 462 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Acute EC50 210 µg/l Fresh water	Algae - <i>Selenastrum sp.</i>	96 hours
	Acute LC50 10800 µg/l Marine water	Crustaceans - <i>Pandalus montagui</i> - Adult	48 hours
	Acute LC50 2.518 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 7200 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
Hyb Enhancer			
Formamide	Acute EC50 >500 mg/l Fresh water	Algae	72 hours

Section 12. Ecological information

Soft Conversion Reagent A tetrahydro-2-furylmethanol	Acute EC50 >500 mg/l Fresh water	Daphnia	48 hours
	Acute LC50 6569 mg/l Fresh water	Fish	96 hours
Hyb Wash Buffer 1 Sodium dodecyl sulphate	Acute NOEC 4640 mg/l Fresh water	Algae	72 hours
	Acute NOEC 4640 mg/l Fresh water	Fish	96 hours
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Acute EC50 >98.9 mg/l	Algae	72 hours
	Acute EC50 >91.7 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours
Soft Conversion Binding Beads Ethanol	Acute LC50 >101 mg/l	Fish	96 hours
	Acute EC50 1200 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
Hyb Wash Buffer 1 Sodium dodecyl sulphate	Acute LC50 900 µg/l Marine water	Crustaceans - <i>Artemia salina</i> - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours
Soft Conversion Binding Beads Ethanol	Acute LC50 590 µg/l Fresh water	Fish - <i>Cirrhinus mrigala</i> - Larvae	96 hours
	Chronic NOEC 1.25 mg/l Marine water	Algae - <i>Ulva fasciata</i> - Zoea	96 hours
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Chronic NOEC 1 mg/l Fresh water	Crustaceans - <i>Pseudosida ramosa</i> - Neonate	21 days
	Chronic NOEC 3.2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
Soft Conversion Binding Beads Ethanol	Chronic NOEC 0.8 mg/l Fresh water	Fish - <i>Gambusia holbrooki</i>	28 days
	Acute EC50 210 µg/l Fresh water	Algae - <i>Selenastrum sp.</i>	96 hours
Hyb Wash Buffer 1 Sodium dodecyl sulphate	Acute LC50 10800 µg/l Marine water	Crustaceans - <i>Pandalus montagui</i> - Adult	48 hours
	Acute LC50 2.518 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
Soft Conversion Binding Beads Ethanol	Acute LC50 7200 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Acute EC50 3306 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Acute EC50 1074 mg/l Fresh water	Crustaceans - <i>Cypris subglobosa</i>	48 hours
	Acute EC50 2 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
Soft Conversion Binding Beads Ethanol	Acute LC50 11000000 µg/l Marine water	Fish - <i>Alburnus alburnus</i>	96 hours
	Chronic NOEC 4.995 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
Hyb Wash Buffer 1 Sodium dodecyl sulphate	Chronic NOEC 100 µl/L Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
	Acute EC50 210 µg/l Fresh water	Algae - <i>Selenastrum sp.</i>	96 hours
Soft Conversion Binding Beads Ethanol	Acute LC50 10800 µg/l Marine water	Crustaceans - <i>Pandalus montagui</i> - Adult	48 hours
	Acute LC50 2.518 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Acute LC50 7200 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours

[12.2 Persistence and degradability](#)

Section 12. Ecological information

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-furylmethanol	-	92 % - Readily - 28 days	-	-
Hyb Wash Buffer 1 Sodium dodecyl sulphate	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	95 % - Readily - 28 days	20 mg/l	-
Soft Conversion Binding Beads Guanidinium thiocyanate	OECD 302B Inherent Biodegradability: Zahn-Wellens/EMPA Test	46 % - Inherent - 28 days	-	-

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-furylmethanol	-	-	Readily
Hyb Wash Buffer 1 Sodium dodecyl sulphate	-	-	Readily
Soft Conversion Binding Beads Ethanol	-	-	Readily

Section 12. Ecological information

Guanidinium thiocyanate	-	-	Inherent
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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-furylmethanol	0.722	-	Low
Hyb Wash Buffer 1 Sodium dodecyl sulphate	-2.03	-	Low
Hyb Wash Buffer 2 Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	2.7	78.67	Low
Soft Conversion Binding Beads Ethanol	-0.35	0.5	Low
Guanidinium thiocyanate	<-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.

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

Section 13. Disposal considerations

13.1 Waste treatment methods






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

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN3316	UN3316	UN3316	UN3316	UN3316
UN proper shipping name	Chemical kit	CHEMICAL KIT	EQUIPO QUIMICO	CHEMICAL KIT	Chemical kit
Transport hazard class(es)	9 	9 	9 	9 	9 
Packing group	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.

Additional information

Remarks: Excepted Quantity

DOT Classification : **Limited quantity** Yes.
Packaging instruction Exceptions: 161. Non-bulk: 161. Bulk: None.
Quantity limitation Passenger aircraft/rail: 10 kg. Cargo aircraft: 10 kg.
Special provisions 15

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9).
Passenger Carrying Road or Rail Index 10
Special provisions 65, 141

Mexico Classification : **Special provisions** 251, 340

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

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

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

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

U.S. Federal regulations : **TSCA 8(a) PAIR:** Formamide; Poly(oxy-1,2-ethanediyl), .alpha.-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-; Polyoxyethylene octyl phenyl ether
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 311: ammonium hydrogensulphite; Sodium hydroxide; Edetic acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Soft Conversion Binding Beads Sodium azide	<0.1	Yes.	500	-	1000	-
Capture Beads Sodium azide	<0.1	Yes.	500	-	1000	-

SARA 304 RQ : 83333333.3 lbs / 37833333.3 kg

SARA 311/312

Classification : Nuclease-Free Water Not applicable.
End Prep Buffer Not applicable.
End Prep Enzyme EYE IRRITATION - Category 2B
Ligation Buffer Not applicable.
Ligation Enzyme EYE IRRITATION - Category 2B
Adapter for ILM Not applicable.
Hyb Blocker Not applicable.
Hyb Buffer ACUTE TOXICITY (oral) - Category 4
SKIN IRRITATION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

Section 15. Regulatory information

Hyb Enhancer	CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Soft Conversion Reagent A	FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - Category 1B
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	EYE IRRITATION - Category 2A FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 HNOC - Corrosive to respiratory tract
Soft Conversion Binding Beads	Not applicable.
5X Soft Conversion Wash Buffer	Not applicable.
Soft Conversion Elution Buffer	SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1
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.

Composition/information on ingredients

Name	%	Classification
End Prep Enzyme		
Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
Ligation Enzyme		
Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
Hyb Buffer		
tetramethylammonium chloride	≥10 - <15	ACUTE TOXICITY (oral) - Category 2 ACUTE TOXICITY (dermal) - Category 3 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
Dextran sulfate sodium	≤3	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Hyb Enhancer		
Formamide	≥90	CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Soft Conversion Reagent A		
tetrahydro-2-furylmethanol	≥90	FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - Category 1B
Soft Conversion Reagent B		
ammonium hydrogensulphite	≥50 - ≤75	EYE IRRITATION - Category 2A
Soft Conversion Binding Beads		
Ethanol	≥50 - ≤75	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A HNOC - Defatting irritant
Guanidinium thiocyanate	≥10 - ≤21	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 HNOC - Corrosive to digestive tract HNOC - Corrosive to respiratory tract
Poly(oxy-1,2-ethanediyl), .alpha.- [[1,1,3,3-tetramethylbutyl)phenyl]	≤6.5	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1

Section 15. Regulatory information

-.omega.-hydroxy-

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Soft Conversion Reagent B ammonium hydrogensulphite	10192-30-0	≥50 - ≤75
Supplier notification	Hyb Enhancer Formamide	75-12-7	≥90
	Soft Conversion Reagent B ammonium hydrogensulphite	10192-30-0	≥50 - ≤75

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: GLYCERINE MIST; TETRAHYDROFURFURYL ALCOHOL; FORMAMIDE; AMMONIUM BISULFITE; ETHYL ALCOHOL
- New York** : The following components are listed: Ammonium bisulfite
- New Jersey** : The following components are listed: GLYCERIN; FORMAMIDE; AMMONIUM BISULFITE; ETHYL ALCOHOL
- Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL; 2-FURANMETHANOL, TETRAHYDRO-; FORMAMIDE; SULFUROUS ACID, MONOAMMONIUM SALT; ETHANOL

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : Not determined.
- Canada** : Not determined.
- China** : Not determined.
- Japan** : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.
- New Zealand** : Not determined.
- Philippines** : Not determined.
- Republic of Korea** : Not determined.
- Taiwan** : Not determined.
- Thailand** : Not determined.
- Turkey** : Not determined.

Section 15. Regulatory information

United States : Not determined.

Viet Nam : Not determined.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
End Prep Buffer AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method
End Prep Enzyme EYE IRRITATION - Category 2B	Calculation method
Ligation Enzyme EYE IRRITATION - Category 2B	Calculation method
Hyb Buffer ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method Calculation method Calculation method Calculation method
Hyb Enhancer CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method Calculation method Calculation method
Soft Conversion Reagent A FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - Category 1B	On basis of test data Calculation method Calculation method
Soft Conversion Reagent B EYE IRRITATION - Category 2A	Calculation method
Soft Conversion Binding Beads FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2	On basis of test data Calculation method Calculation method Calculation method Calculation method
Soft Conversion Elution Buffer SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1	On basis of test data On basis of test data

History

Date of issue/Date of revision : 04/08/2024

Date of previous issue : 02/26/2024

Version : 1.1

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient

Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

UN = United Nations

✔ Indicates information that has changed from previously issued version.

[Notice to reader](#)

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