Conforms to US OSHA Hazard Communication 29CFR1910.1200

SAFETY DATA SHEET

Agilent Technologies

ClearSeq Disease Research Panel Kit - ILM - 16 reactions

Section 1. Identification

1.1 Product identifier

Product name : ClearSeq Disease Research Panel Kit - ILM - 16 reactions

Part No. (Chemical Kit) : G9913A

Part No. :

RE Buffer	5190-4980
SSC Buffer	5190-5342
BSA Solution	5190-5347
DNA Ligase	5190-4979
Ligation Solution	5190-4976
Wash Solution	5190-4977
Capture Solution	5190-4978
Primer 1	5190-5340
Primer 2	5190-5341
HaloPlex Indexing Primer Cassette 1-16	various*
Hybridization Solution	5190-5345
Enrichment Control DNA	5190-5339
HaloPlex Magnetic Beads	5190-5351
ClearSeq Probe	5190-7732
Enzyme Strip 1	**5190-5343**
Enzyme Strip 1 - well A, B, C, D, E, G, H	Not available.
Enzyme Strip 1 - well F	Not available.
Enzyme Strip 2	**5190-5344**
Enzyme Strip 2 - well A, B, C, D, E, F, H	Not available.
Enzyme Strip 2 - well G	Not available.

Validation date : 08/21/2014.

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

Material uses : Analytical reagent.

RE Buffer	0.8 ml
SSC Buffer	2.2 ml (1.1 ml x 2 vials)
BSA Solution	0.03 ml
DNA Ligase	0.05 ml
Ligation Solution	0.96 ml
Wash Solution	2.2 ml (1.1 ml x 2 vials)
Capture Solution	0.8 ml
Primer 1	0.024 ml
Primer 2	0.024 ml
HaloPlex Indexing Primer Cassette 1-16	0.015 ml x 16 Tubes
Hybridization Solution	1.1 ml
Enrichment Control DNA	0.12 ml
HaloPlex Magnetic Beads	0.8 ml
ClearSeq Probe	0.4 ml
Enzyme Strip 1 - well A, B, C, D, E, G, H	0.016 ml / well
Enzyme Strip 1 - well F	0.016 ml / well
Enzyme Strip 2 - well A, B, C, D, E, F, H	0.016 ml / well
Enzyme Strip 2 - well G	0.016 ml / well

1.3 Details of the supplier of the safety data sheet

Section 1. Identification

Supplier/Manufacturer : Agilent Technologies, Inc.
Logistics Center - Americas
500 Ships Landing Way
New Castle, Delaware 19720
800-227-9770

1.4 Emergency telephone number

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

Note * : *** HaloPlex Indexing Primer Cassette 1-16:5190-5366_5190-5367_5190-5368_5190-5369 5190-5370_5190-5371_5190-5372_5190-5373_5190-5374_5190-5375_5190-5376_5190-5377 5190-5378_5190-5379_5190-5380_5190-5381**

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status :

RE Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
SSC Buffer	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
BSA Solution	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
DNA Ligase	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Ligation Solution	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Wash Solution	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Capture Solution	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Primer 1	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Section 2. Hazards identification

Primer 2	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
HaloPlex Indexing Primer Cassette 1-16	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Hybridization Solution	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Enrichment Control DNA	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
HaloPlex Magnetic Beads	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
ClearSeq Probe	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Enzyme Strip 1 - well A, B, C, D, E, G, H	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Enzyme Strip 1 - well F	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Enzyme Strip 2 - well A, B, C, D, E, F, H	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Enzyme Strip 2 - well G	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

BSA Solution

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

DNA Ligase

H320	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Ligation Solution

Section 2. Hazards identification

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

Wash Solution

H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
H360	TOXIC TO REPRODUCTION (Unborn child) - Category 1B

Hybridization Solution

H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
H360	TOXIC TO REPRODUCTION (Unborn child) - Category 1B

Enzyme Strip 1 - well A, B, C, D, E, G, H

H320	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Enzyme Strip 1 - well F

H320	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
H317	SKIN SENSITIZATION - Category 1
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Enzyme Strip 2 - well A, B, C, D, E, F, H

H320	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Enzyme Strip 2 - well G

H320	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

2.2 GHS label elements

Hazard pictograms :

Signal word :

RE Buffer	No signal word.
SSC Buffer	No signal word.
BSA Solution	Warning
DNA Ligase	Warning
Ligation Solution	Warning
Wash Solution	Danger
Capture Solution	No signal word.
Primer 1	No signal word.
Primer 2	No signal word.
HaloPlex Indexing Primer Cassette 1-16	No signal word.
Hybridization Solution	Danger
Enrichment Control DNA	No signal word.
HaloPlex Magnetic Beads	No signal word.
ClearSeq Probe	No signal word.
Enzyme Strip 1 - well A, B, C, D, E, G, H	Warning
Enzyme Strip 1 - well F	Warning
Enzyme Strip 2 - well A, B, C, D, E, F, H	Warning
Enzyme Strip 2 - well G	Warning

Section 2. Hazards identification

Hazard statements :

RE Buffer	No known significant effects or critical hazards.
SSC Buffer	No known significant effects or critical hazards.
BSA Solution	H373 - May cause damage to organs through prolonged or repeated exposure.
DNA Ligase	H320 - Causes eye irritation. H373 - May cause damage to organs through prolonged or repeated exposure.
Ligation Solution	H373 - May cause damage to organs through prolonged or repeated exposure.
Wash Solution	H319 - Causes serious eye irritation. H360 - May damage the unborn child.
Capture Solution	No known significant effects or critical hazards.
Primer 1	No known significant effects or critical hazards.
Primer 2	No known significant effects or critical hazards.
HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
Hybridization Solution	H319 - Causes serious eye irritation. H360 - May damage the unborn child.
Enrichment Control DNA	No known significant effects or critical hazards.
HaloPlex Magnetic Beads	No known significant effects or critical hazards.
ClearSeq Probe	No known significant effects or critical hazards.
Enzyme Strip 1 - well A, B, C, D, E, G, H	H320 - Causes eye irritation. H373 - May cause damage to organs through prolonged or repeated exposure.
Enzyme Strip 1 - well F	H320 - Causes eye irritation. H317 - May cause an allergic skin reaction. H373 - May cause damage to organs through prolonged or repeated exposure.
Enzyme Strip 2 - well A, B, C, D, E, F, H	H320 - Causes eye irritation. H373 - May cause damage to organs through prolonged or repeated exposure.
Enzyme Strip 2 - well G	H320 - Causes eye irritation. H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention :

RE Buffer	Not applicable.
SSC Buffer	Not applicable.
BSA Solution	P260 - Do not breathe vapor.
DNA Ligase	P280 - Wear eye or face protection. P260 - Do not breathe vapor. P264 - Wash hands thoroughly after handling.
Ligation Solution	P260 - Do not breathe vapor.
Wash Solution	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P281 - Use personal protective equipment as required. P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
Capture Solution	Not applicable.
Primer 1	Not applicable.
Primer 2	Not applicable.
HaloPlex Indexing Primer Cassette 1-16	Not applicable.
Hybridization Solution	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P281 - Use personal protective equipment as required.

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		P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
	Enrichment Control DNA	Not applicable.
	HaloPlex Magnetic Beads	Not applicable.
	ClearSeq Probe	Not applicable.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	P280 - Wear eye or face protection. P260 - Do not breathe vapor. P264 - Wash hands thoroughly after handling.
	Enzyme Strip 1 - well F	P280 - Wear protective gloves. Wear eye or face protection. P260 - Do not breathe vapor. P264 - Wash hands thoroughly after handling. P272 - Contaminated work clothing should not be allowed out of the workplace.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	P280 - Wear eye or face protection. P260 - Do not breathe vapor. P264 - Wash hands thoroughly after handling.
	Enzyme Strip 2 - well G	P280 - Wear eye or face protection. P260 - Do not breathe vapor. P264 - Wash hands thoroughly after handling.
Response :	RE Buffer	Not applicable.
	SSC Buffer	Not applicable.
	BSA Solution	P314 - Get medical attention if you feel unwell.
	DNA Ligase	P314 - Get medical attention if you feel unwell. 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 attention.
	Ligation Solution	P314 - Get medical attention if you feel unwell.
	Wash Solution	P308 + P313 - IF exposed or concerned: Get medical 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 attention.
	Capture Solution	Not applicable.
	Primer 1	Not applicable.
	Primer 2	Not applicable.
	HaloPlex Indexing Primer Cassette 1-16	Not applicable.
	Hybridization Solution	P308 + P313 - IF exposed or concerned: Get medical 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 attention.
	Enrichment Control DNA	Not applicable.
	HaloPlex Magnetic Beads	Not applicable.
	ClearSeq Probe	Not applicable.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	P314 - Get medical attention if you feel unwell. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

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			Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
		Enzyme Strip 1 - well F	P314 - Get medical attention if you feel unwell. P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical 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 attention.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	P314 - Get medical attention if you feel unwell. 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 attention.
		Enzyme Strip 2 - well G	P314 - Get medical attention if you feel unwell. 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 attention.
Storage	:	RE Buffer	Not applicable.
		SSC Buffer	Not applicable.
		BSA Solution	Not applicable.
		DNA Ligase	Not applicable.
		Ligation Solution	Not applicable.
		Wash Solution	P405 - Store locked up.
		Capture Solution	Not applicable.
		Primer 1	Not applicable.
		Primer 2	Not applicable.
		HaloPlex Indexing Primer Cassette 1-16	Not applicable.
		Hybridization Solution	P405 - Store locked up.
		Enrichment Control DNA	Not applicable.
		HaloPlex Magnetic Beads	Not applicable.
		ClearSeq Probe	Not applicable.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Not applicable.
		Enzyme Strip 1 - well F	Not applicable.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Not applicable.
		Enzyme Strip 2 - well G	Not applicable.
Disposal	:	RE Buffer	Not applicable.
		SSC Buffer	Not applicable.
		BSA Solution	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		DNA Ligase	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		Ligation Solution	P501 - Dispose of contents and container in

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		accordance with all local, regional, national and international regulations.
	Wash Solution	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Capture Solution	Not applicable.
	Primer 1	Not applicable.
	Primer 2	Not applicable.
	HaloPlex Indexing Primer Cassette 1-16	Not applicable.
	Hybridization Solution	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Enrichment Control DNA	Not applicable.
	HaloPlex Magnetic Beads	Not applicable.
	ClearSeq Probe	Not applicable.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Enzyme Strip 1 - well F	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Enzyme Strip 2 - well G	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements :	RE Buffer	None known.
	SSC Buffer	None known.
	BSA Solution	None known.
	DNA Ligase	None known.
	Ligation Solution	None known.
	Wash Solution	None known.
	Capture Solution	None known.
	Primer 1	None known.
	Primer 2	None known.
	HaloPlex Indexing Primer Cassette 1-16	None known.
	Hybridization Solution	None known.
	Enrichment Control DNA	None known.
	HaloPlex Magnetic Beads	None known.
	ClearSeq Probe	None known.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	None known.
	Enzyme Strip 1 - well F	None known.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	None known.
	Enzyme Strip 2 - well G	None known.

2.3 Other hazards

Hazards not otherwise classified :	RE Buffer	None known.
	SSC Buffer	None known.
	BSA Solution	None known.
	DNA Ligase	None known.
	Ligation Solution	None known.
	Wash Solution	None known.
	Capture Solution	None known.
	Primer 1	None known.

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Primer 2	None known.
HaloPlex Indexing Primer Cassette 1-16	None known.
Hybridization Solution	None known.
Enrichment Control DNA	None known.
HaloPlex Magnetic Beads	None known.
ClearSeq Probe	None known.
Enzyme Strip 1 - well A, B, C, D, E, G, H	None known.
Enzyme Strip 1 - well F	None known.
Enzyme Strip 2 - well A, B, C, D, E, F, H	None known.
Enzyme Strip 2 - well G	None known.

Section 3. Composition/information on ingredients

Substance/mixture :

RE Buffer	Mixture
SSC Buffer	Mixture
BSA Solution	Mixture
DNA Ligase	Mixture
Ligation Solution	Mixture
Wash Solution	Mixture
Capture Solution	Mixture
Primer 1	Mixture
Primer 2	Mixture
HaloPlex Indexing Primer Cassette 1-16	Mixture
Hybridization Solution	Mixture
Enrichment Control DNA	Mixture
HaloPlex Magnetic Beads	Mixture
ClearSeq Probe	Mixture
Enzyme Strip 1 - well A, B, C, D, E, G, H	Mixture
Enzyme Strip 1 - well F	Mixture
Enzyme Strip 2 - well A, B, C, D, E, F, H	Mixture
Enzyme Strip 2 - well G	Mixture

Ingredient name	%	CAS number
BSA Solution		
Glycerol	1 - 5	56-81-5
DNA Ligase		
Glycerol	30 - 60	56-81-5
Ligation Solution		
Glycerol	1 - 5	56-81-5
Wash Solution		
Formamide	10 - 30	75-12-7
Sodium chloride	5 - 10	7647-14-5
Capture Solution		
Sodium chloride	5 - 10	7647-14-5
Hybridization Solution		
Formamide	30 - 60	75-12-7

Section 3. Composition/information on ingredients

Sodium chloride	10 - 30	7647-14-5
Enzyme Strip 1 - well A, B, C, D, E, G, H		
Glycerol	30 - 60	56-81-5
Enzyme Strip 1 - well F		
Glycerol	30 - 60	56-81-5
2-Mercaptoethanol	0.1 - 1	60-24-2
Enzyme Strip 2 - well A, B, C, D, E, F, H		
Glycerol	30 - 60	56-81-5
Enzyme Strip 2 - well G		
Glycerol	30 - 60	56-81-5
Sodium chloride	1 - 5	7647-14-5

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 as hazardous to health or the environment 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 :

RE 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.

SSC 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.

BSA Solution: 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 following exposure or if feeling unwell.

DNA Ligase: 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 following exposure or if feeling unwell.

Ligation Solution: 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 following exposure or if feeling unwell.

Wash Solution: 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.

Capture Solution: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

Section 4. First aid measures

	medical attention if irritation occurs.
Primer 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.
Primer 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.
HaloPlex Indexing Primer Cassette 1-16	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.
Hybridization Solution	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.
Enrichment Control DNA	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.
HaloPlex Magnetic 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.
ClearSeq Probe	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.
Enzyme Strip 1 - well A, B, C, D, E, G, H	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 following exposure or if feeling unwell.
Enzyme Strip 1 - well F	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 following exposure or if feeling unwell.
Enzyme Strip 2 - well A, B, C, D, E, F, H	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 following exposure or if feeling unwell.
Enzyme Strip 2 - well G	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 following exposure or if feeling unwell.

Section 4. First aid measures

Inhalation	:	RE Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		SSC Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		BSA Solution	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 following exposure or if feeling unwell. 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.
		DNA Ligase	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 following exposure or if feeling unwell. 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 Solution	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 following exposure or if feeling unwell. 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 Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		Capture Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical

Section 4. First aid measures

	attention if symptoms occur.
Primer 1	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Primer 2	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
HaloPlex Indexing Primer Cassette 1-16	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Hybridization Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Enrichment Control DNA	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
HaloPlex Magnetic Beads	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
ClearSeq Probe	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Enzyme Strip 1 - well A, B, C, D, E, G, H	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 following exposure or if feeling unwell. 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.
Enzyme Strip 1 - well F	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 following exposure or if feeling unwell. 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.
Enzyme Strip 2 - well A, B, C, D, E,	Remove victim to fresh air and keep at rest in a

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		F, H	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 following exposure or if feeling unwell. 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.
		Enzyme Strip 2 - well G	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 following exposure or if feeling unwell. 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.
Skin contact	:	RE Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		SSC Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		BSA Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		DNA Ligase	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		Ligation Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		Wash Solution	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.
		Capture Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		Primer 1	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

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	Primer 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	HaloPlex Indexing Primer Cassette 1-16	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Hybridization Solution	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.
	Enrichment Control DNA	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	HaloPlex Magnetic Beads	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	ClearSeq Probe	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Enzyme Strip 1 - well F	Wash with plenty of soap and 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. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Enzyme Strip 2 - well G	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion :	RE Buffer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
	SSC Buffer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small

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	quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
BSA Solution	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. 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.
DNA Ligase	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. 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 Solution	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. 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 Solution	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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

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	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.
Capture Solution	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
Primer 1	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
Primer 2	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
HaloPlex Indexing Primer Cassette 1-16	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
Hybridization Solution	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
Enrichment Control DNA	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
HaloPlex Magnetic Beads	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable

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	for breathing. 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.
ClearSeq Probe	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
Enzyme Strip 1 - well A, B, C, D, E, G, H	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. 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.
Enzyme Strip 1 - well F	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. 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.
Enzyme Strip 2 - well A, B, C, D, E, F, H	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. 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,

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		belt or waistband.
	Enzyme Strip 2 - well G	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. 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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	RE Buffer	No known significant effects or critical hazards.
		SSC Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		DNA Ligase	Causes eye irritation.
		Ligation Solution	No known significant effects or critical hazards.
		Wash Solution	Causes serious eye irritation.
		Capture Solution	No known significant effects or critical hazards.
		Primer 1	No known significant effects or critical hazards.
		Primer 2	No known significant effects or critical hazards.
		HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
		Hybridization Solution	Causes serious eye irritation.
		Enrichment Control DNA	No known significant effects or critical hazards.
		HaloPlex Magnetic Beads	No known significant effects or critical hazards.
		ClearSeq Probe	No known significant effects or critical hazards.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Causes eye irritation.
		Enzyme Strip 1 - well F	Causes eye irritation.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Causes eye irritation.
		Enzyme Strip 2 - well G	Causes eye irritation.
Inhalation	:	RE Buffer	No known significant effects or critical hazards.
		SSC Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		DNA Ligase	No known significant effects or critical hazards.
		Ligation Solution	No known significant effects or critical hazards.
		Wash Solution	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
		Capture Solution	No known significant effects or critical hazards.
		Primer 1	No known significant effects or critical hazards.
		Primer 2	No known significant effects or critical hazards.
		HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
		Hybridization Solution	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
		Enrichment Control DNA	No known significant effects or critical hazards.

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		HaloPlex Magnetic Beads	No known significant effects or critical hazards.
		ClearSeq Probe	No known significant effects or critical hazards.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No known significant effects or critical hazards.
		Enzyme Strip 1 - well F	No known significant effects or critical hazards.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No known significant effects or critical hazards.
		Enzyme Strip 2 - well G	No known significant effects or critical hazards.
Skin contact	:	RE Buffer	No known significant effects or critical hazards.
		SSC Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		DNA Ligase	No known significant effects or critical hazards.
		Ligation Solution	No known significant effects or critical hazards.
		Wash Solution	No known significant effects or critical hazards.
		Capture Solution	No known significant effects or critical hazards.
		Primer 1	No known significant effects or critical hazards.
		Primer 2	No known significant effects or critical hazards.
		HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
		Hybridization Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		HaloPlex Magnetic Beads	No known significant effects or critical hazards.
		ClearSeq Probe	No known significant effects or critical hazards.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No known significant effects or critical hazards.
		Enzyme Strip 1 - well F	May cause an allergic skin reaction.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No known significant effects or critical hazards.
		Enzyme Strip 2 - well G	No known significant effects or critical hazards.
Ingestion	:	RE Buffer	No known significant effects or critical hazards.
		SSC Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		DNA Ligase	May be irritating to mouth, throat and stomach.
		Ligation Solution	No known significant effects or critical hazards.
		Wash Solution	Irritating to mouth, throat and stomach.
		Capture Solution	No known significant effects or critical hazards.
		Primer 1	No known significant effects or critical hazards.
		Primer 2	No known significant effects or critical hazards.
		HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
		Hybridization Solution	Irritating to mouth, throat and stomach.
		Enrichment Control DNA	No known significant effects or critical hazards.
		HaloPlex Magnetic Beads	No known significant effects or critical hazards.
		ClearSeq Probe	No known significant effects or critical hazards.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	May be irritating to mouth, throat and stomach.
		Enzyme Strip 1 - well F	May be irritating to mouth, throat and stomach.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	May be irritating to mouth, throat and stomach.
		Enzyme Strip 2 - well G	May be irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact	:	RE Buffer	No specific data.
		SSC Buffer	No specific data.
		BSA Solution	No specific data.
		DNA Ligase	Adverse symptoms may include the following: irritation watering redness

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	Ligation Solution	No specific data.
	Wash Solution	Adverse symptoms may include the following: pain or irritation watering redness
	Capture Solution	No specific data.
	Primer 1	No specific data.
	Primer 2	No specific data.
	HaloPlex Indexing Primer Cassette 1-16	No specific data.
	Hybridization Solution	Adverse symptoms may include the following: pain or irritation watering redness
	Enrichment Control DNA	No specific data.
	HaloPlex Magnetic Beads	No specific data.
	ClearSeq Probe	No specific data.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	Adverse symptoms may include the following: irritation watering redness
	Enzyme Strip 1 - well F	Adverse symptoms may include the following: irritation watering redness
	Enzyme Strip 2 - well A, B, C, D, E, F, H	Adverse symptoms may include the following: irritation watering redness
	Enzyme Strip 2 - well G	Adverse symptoms may include the following: irritation watering redness
Inhalation :	RE Buffer	No specific data.
	SSC Buffer	No specific data.
	BSA Solution	No specific data.
	DNA Ligase	No specific data.
	Ligation Solution	No specific data.
	Wash Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
	Capture Solution	No specific data.
	Primer 1	No specific data.
	Primer 2	No specific data.
	HaloPlex Indexing Primer Cassette 1-16	No specific data.
	Hybridization Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
	Enrichment Control DNA	No specific data.
	HaloPlex Magnetic Beads	No specific data.
	ClearSeq Probe	No specific data.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	No specific data.
	Enzyme Strip 1 - well F	No specific data.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	No specific data.

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		Enzyme Strip 2 - well G	No specific data.
Skin contact	:	RE Buffer	No specific data.
		SSC Buffer	No specific data.
		BSA Solution	No specific data.
		DNA Ligase	No specific data.
		Ligation Solution	No specific data.
		Wash Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		Capture Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HaloPlex Indexing Primer Cassette 1-16	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		Enrichment Control DNA	No specific data.
		HaloPlex Magnetic Beads	No specific data.
		ClearSeq Probe	No specific data.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No specific data.
		Enzyme Strip 1 - well F	Adverse symptoms may include the following: irritation redness
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No specific data.
		Enzyme Strip 2 - well G	No specific data.
Ingestion	:	RE Buffer	No specific data.
		SSC Buffer	No specific data.
		BSA Solution	No specific data.
		DNA Ligase	No specific data.
		Ligation Solution	No specific data.
		Wash Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		Capture Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HaloPlex Indexing Primer Cassette 1-16	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		Enrichment Control DNA	No specific data.
		HaloPlex Magnetic Beads	No specific data.
		ClearSeq Probe	No specific data.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No specific data.
		Enzyme Strip 1 - well F	No specific data.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No specific data.
		Enzyme Strip 2 - well G	No specific data.

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

Notes to physician	:	RE Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		SSC Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		BSA Solution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		DNA Ligase	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Ligation Solution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Wash 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.
		Capture Solution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Primer 1	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Primer 2	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		HaloPlex Indexing Primer Cassette 1-16	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Hybridization 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.
		Enrichment Control DNA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		HaloPlex Magnetic Beads	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		ClearSeq Probe	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Enzyme Strip 1 - well F	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Enzyme Strip 2 - well G	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

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Specific treatments	:	RE Buffer	No specific treatment.
		SSC Buffer	No specific treatment.
		BSA Solution	No specific treatment.
		DNA Ligase	No specific treatment.
		Ligation Solution	No specific treatment.
		Wash Solution	No specific treatment.
		Capture Solution	No specific treatment.
		Primer 1	No specific treatment.
		Primer 2	No specific treatment.
		HaloPlex Indexing Primer Cassette 1-16	No specific treatment.
		Hybridization Solution	No specific treatment.
		Enrichment Control DNA	No specific treatment.
		HaloPlex Magnetic Beads	No specific treatment.
		ClearSeq Probe	No specific treatment.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No specific treatment.
		Enzyme Strip 1 - well F	No specific treatment.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No specific treatment.
		Enzyme Strip 2 - well G	No specific treatment.
Protection of first-aiders	:	RE Buffer	No action shall be taken involving any personal risk or without suitable training.
		SSC Buffer	No action shall be taken involving any personal risk or without suitable training.
		BSA Solution	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.
		DNA Ligase	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
		Ligation Solution	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.
		Wash Solution	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.
		Capture Solution	No action shall be taken involving any personal risk or without suitable training.
		Primer 1	No action shall be taken involving any personal risk or without suitable training.
		Primer 2	No action shall be taken involving any personal risk or without suitable training.
		HaloPlex Indexing Primer Cassette 1-16	No action shall be taken involving any personal risk or without suitable training.
		Hybridization Solution	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.

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	Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
Enrichment Control DNA	No action shall be taken involving any personal risk or without suitable training.
HaloPlex Magnetic Beads	No action shall be taken involving any personal risk or without suitable training.
ClearSeq Probe	No action shall be taken involving any personal risk or without suitable training.
Enzyme Strip 1 - well A, B, C, D, E, G, H	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.
Enzyme Strip 1 - well F	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
Enzyme Strip 2 - well A, B, C, D, E, F, H	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.
Enzyme Strip 2 - well G	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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media :

RE Buffer	Use an extinguishing agent suitable for the surrounding fire.
SSC Buffer	Use an extinguishing agent suitable for the surrounding fire.
BSA Solution	Use an extinguishing agent suitable for the surrounding fire.
DNA Ligase	Use an extinguishing agent suitable for the surrounding fire.
Ligation Solution	Use an extinguishing agent suitable for the surrounding fire.
Wash Solution	Use an extinguishing agent suitable for the surrounding fire.
Capture Solution	Use an extinguishing agent suitable for the surrounding fire.
Primer 1	Use an extinguishing agent suitable for the surrounding fire.
Primer 2	Use an extinguishing agent suitable for the surrounding fire.
HaloPlex Indexing Primer Cassette 1-16	Use an extinguishing agent suitable for the surrounding fire.
Hybridization Solution	Use an extinguishing agent suitable for the surrounding fire.
Enrichment Control DNA	Use an extinguishing agent suitable for the surrounding fire.
HaloPlex Magnetic Beads	Use an extinguishing agent suitable for the surrounding fire.
ClearSeq Probe	Use an extinguishing agent suitable for the

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		surrounding fire.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	Use an extinguishing agent suitable for the surrounding fire.
	Enzyme Strip 1 - well F	Use an extinguishing agent suitable for the surrounding fire.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	Use an extinguishing agent suitable for the surrounding fire.
	Enzyme Strip 2 - well G	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media :	RE Buffer	None known.
	SSC Buffer	None known.
	BSA Solution	None known.
	DNA Ligase	None known.
	Ligation Solution	None known.
	Wash Solution	None known.
	Capture Solution	None known.
	Primer 1	None known.
	Primer 2	None known.
	HaloPlex Indexing Primer Cassette 1-16	None known.
	Hybridization Solution	None known.
	Enrichment Control DNA	None known.
	HaloPlex Magnetic Beads	None known.
	ClearSeq Probe	None known.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	None known.
	Enzyme Strip 1 - well F	None known.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	None known.
	Enzyme Strip 2 - well G	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical :	RE Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	SSC Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	BSA Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
	DNA Ligase	In a fire or if heated, a pressure increase will occur and the container may burst.
	Ligation Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
	Wash Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
	Capture Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
	Primer 1	In a fire or if heated, a pressure increase will occur and the container may burst.
	Primer 2	In a fire or if heated, a pressure increase will occur and the container may burst.
	HaloPlex Indexing Primer Cassette 1-16	In a fire or if heated, a pressure increase will occur and the container may burst.
	Hybridization Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
	Enrichment Control DNA	In a fire or if heated, a pressure increase will occur and the container may burst.
	HaloPlex Magnetic Beads	In a fire or if heated, a pressure increase will occur and the container may burst.

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ClearSeq Probe	In a fire or if heated, a pressure increase will occur and the container may burst.
Enzyme Strip 1 - well A, B, C, D, E, G, H	In a fire or if heated, a pressure increase will occur and the container may burst.
Enzyme Strip 1 - well F	In a fire or if heated, a pressure increase will occur and the container may burst.
Enzyme Strip 2 - well A, B, C, D, E, F, H	In a fire or if heated, a pressure increase will occur and the container may burst.
Enzyme Strip 2 - well G	In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters :

RE 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.
SSC 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.
BSA 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.
DNA Ligase	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 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.
Wash 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.
Capture 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.
Primer 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.
Primer 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.
HaloPlex Indexing Primer Cassette 1-16	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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	Hybridization 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.
	Enrichment Control DNA	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.
	HaloPlex Magnetic 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.
	ClearSeq Probe	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.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	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.
	Enzyme Strip 1 - well F	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.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	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.
	Enzyme Strip 2 - well G	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters :	RE Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SSC Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	BSA Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	DNA Ligase	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Ligation Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Wash Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Capture Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

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	pressure mode.
Primer 1	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Primer 2	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
HaloPlex Indexing Primer Cassette 1-16	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hybridization Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Enrichment Control DNA	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
HaloPlex Magnetic Beads	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
ClearSeq Probe	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Enzyme Strip 1 - well A, B, C, D, E, G, H	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Enzyme Strip 1 - well F	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Enzyme Strip 2 - well A, B, C, D, E, F, H	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Enzyme Strip 2 - well G	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 : 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.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

6.2 Environmental precautions	:	RE 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).
		SSC 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).
		BSA 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).
		DNA Ligase	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 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).
		Wash 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).
		Capture 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).
		Primer 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).
		Primer 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).
		HaloPlex Indexing Primer Cassette 1-16	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).
		Hybridization 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).
		Enrichment Control DNA	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,

Section 6. Accidental release measures

	waterways, soil or air).
HaloPlex Magnetic 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).
ClearSeq Probe	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).
Enzyme Strip 1 - well A, B, C, D, E, G, H	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).
Enzyme Strip 1 - well F	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).
Enzyme Strip 2 - well A, B, C, D, E, F, H	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).
Enzyme Strip 2 - well G	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

RE 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.
SSC 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.
BSA 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.
DNA Ligase	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 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.
Wash 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.
Capture 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,

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	absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Primer 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.
Primer 2	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
HaloPlex Indexing Primer Cassette 1-16	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.
Hybridization 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.
Enrichment Control DNA	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.
HaloPlex Magnetic 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.
ClearSeq Probe	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.
Enzyme Strip 1 - well A, B, C, D, E, G, H	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.
Enzyme Strip 1 - well F	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.
Enzyme Strip 2 - well A, B, C, D, E, F, H	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.
Enzyme Strip 2 - well G	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	:	RE Buffer	Put on appropriate personal protective equipment (see Section 8).
		SSC Buffer	Put on appropriate personal protective equipment (see Section 8).
		BSA Solution	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible

Section 7. Handling and storage

	material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
DNA Ligase	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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 Solution	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.
Wash Solution	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Capture Solution	Put on appropriate personal protective equipment (see Section 8).
Primer 1	Put on appropriate personal protective equipment (see Section 8).
Primer 2	Put on appropriate personal protective equipment (see Section 8).
HaloPlex Indexing Primer Cassette 1-16	Put on appropriate personal protective equipment (see Section 8).
Hybridization Solution	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Enrichment Control DNA	Put on appropriate personal protective equipment (see Section 8).
HaloPlex Magnetic Beads	Put on appropriate personal protective equipment (see Section 8).

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ClearSeq Probe	Put on appropriate personal protective equipment (see Section 8).
Enzyme Strip 1 - well A, B, C, D, E, G, H	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.
Enzyme Strip 1 - well F	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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.
Enzyme Strip 2 - well A, B, C, D, E, F, H	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.
Enzyme Strip 2 - well G	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.

Advice on general occupational hygiene : 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 :

RE 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.
SSC 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

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	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.
BSA Solution	Store between the following temperatures: -20°C (-4°F). 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.
DNA Ligase	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.
Ligation Solution	Storage temperature: -20°C (-4°F). 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.
Wash Solution	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.
Capture Solution	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

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	upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
Primer 1	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
Primer 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.
HaloPlex Indexing Primer Cassette 1-16	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.
Hybridization Solution	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.
Enrichment Control DNA	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.

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HaloPlex Magnetic Beads	Store between the following temperatures: 4 to 25°C (39.2 to 77°F). 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.
ClearSeq Probe	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.
Enzyme Strip 1 - well A, B, C, D, E, G, H	Storage temperature: -20°C (-4°F). 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.
Enzyme Strip 1 - well F	Store between the following temperatures: -20°C (-4°F). 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.
Enzyme Strip 2 - well A, B, C, D, E, F, H	Storage temperature: -20°C (-4°F). 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.

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Enzyme Strip 2 - well G	Storage temperature: -20°C (-4°F). 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.

7.3 Specific end use(s)

Recommendations :

RE Buffer	Industrial applications, Professional applications.
SSC Buffer	Industrial applications, Professional applications.
BSA Solution	Industrial applications, Professional applications.
DNA Ligase	Industrial applications, Professional applications.
Ligation Solution	Industrial applications, Professional applications.
Wash Solution	Industrial applications, Professional applications.
Capture Solution	Industrial applications, Professional applications.
Primer 1	Industrial applications, Professional applications.
Primer 2	Industrial applications, Professional applications.
HaloPlex Indexing Primer Cassette 1-16	Industrial applications, Professional applications.
Hybridization Solution	Industrial applications, Professional applications.
Enrichment Control DNA	Industrial applications, Professional applications.
HaloPlex Magnetic Beads	Industrial applications, Professional applications.
ClearSeq Probe	Industrial applications, Professional applications.
Enzyme Strip 1 - well A, B, C, D, E, G, H	Industrial applications, Professional applications.
Enzyme Strip 1 - well F	Industrial applications, Professional applications.
Enzyme Strip 2 - well A, B, C, D, E, F, H	Industrial applications, Professional applications.
Enzyme Strip 2 - well G	Industrial applications, Professional applications.

Industrial sector specific solutions : Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
BSA Solution Glycerol	**OSHA PEL (United States, 2/2013).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust
DNA Ligase	

Section 8. Exposure controls/personal protection

Glycerol	**OSHA PEL (United States, 2/2013).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust
Ligation Solution	
Glycerol	**OSHA PEL (United States, 2/2013).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust
Wash Solution	
Formamide	**ACGIH TLV (United States, 6/2013).** **Absorbed through skin.** TWA: 10 ppm 8 hours. TWA: 18 mg/m³ 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 20 ppm 8 hours. TWA: 30 mg/m³ 8 hours. STEL: 30 ppm 15 minutes. STEL: 45 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TWA: 10 ppm 10 hours. TWA: 15 mg/m³ 10 hours.
Hybridization Solution	
Formamide	**ACGIH TLV (United States, 6/2013).** **Absorbed through skin.** TWA: 10 ppm 8 hours. TWA: 18 mg/m³ 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 20 ppm 8 hours. TWA: 30 mg/m³ 8 hours. STEL: 30 ppm 15 minutes. STEL: 45 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** **Absorbed through skin.** TWA: 10 ppm 10 hours. TWA: 15 mg/m³ 10 hours.
Enzyme Strip 1 - well A, B, C, D, E, G, H	
Glycerol	**OSHA PEL (United States, 2/2013).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction

Section 8. Exposure controls/personal protection

	TWA: 10 mg/m³ 8 hours. Form: Total dust
Enzyme Strip 1 - well F	
Glycerol	**OSHA PEL (United States, 2/2013).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust
2-Mercaptoethanol	**AIHA WEEL (United States, 10/2011).** **Absorbed through skin.** TWA: 0.2 ppm 8 hours.
Enzyme Strip 2 - well A, B, C, D, E, F, H	
Glycerol	**OSHA PEL (United States, 2/2013).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust
Enzyme Strip 2 - well G	
Glycerol	**OSHA PEL (United States, 2/2013).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust

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.

Skin protection

Section 8. Exposure controls/personal 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 : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state :

RE Buffer	Liquid.
SSC Buffer	Liquid.
BSA Solution	Liquid. [Clear.]
DNA Ligase	Liquid. [Viscous liquid.]
Ligation Solution	Liquid.
Wash Solution	Liquid.
Capture Solution	Liquid.
Primer 1	Liquid.
Primer 2	Liquid.
HaloPlex Indexing Primer Cassette 1-16	Liquid.
Hybridization Solution	Liquid.
Enrichment Control DNA	Liquid.
HaloPlex Magnetic Beads	Liquid. [aqueous suspensions]
ClearSeq Probe	Liquid.
Enzyme Strip 1 - well A, B, C, D, E, G, H	Liquid. [Clear.]
Enzyme Strip 1 - well F	Liquid. [Clear.]
Enzyme Strip 2 - well A, B, C, D, E, F, H	Liquid. [Clear.]
Enzyme Strip 2 - well G	Liquid. [Clear.]

Color :

RE Buffer	Not available.
SSC Buffer	Not available.
BSA Solution	Colorless.
DNA Ligase	Colorless.
Ligation Solution	Not available.
Wash Solution	Not available.
Capture Solution	Not available.
Primer 1	Not available.
Primer 2	Not available.
HaloPlex Indexing Primer Cassette 1-16	Not available.
Hybridization Solution	Not available.
Enrichment Control DNA	Not available.
HaloPlex Magnetic Beads	Brown.

Section 9. Physical and chemical properties

		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Colorless.
		Enzyme Strip 1 - well F	Colorless.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Colorless.
		Enzyme Strip 2 - well G	Colorless.
Odor	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	Odorless.
		DNA Ligase	Odorless.
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	Not available.
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Odorless.
		Enzyme Strip 1 - well F	Odorless.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Odorless.
		Enzyme Strip 2 - well G	Odorless.
Odor threshold	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	Not available.
		DNA Ligase	Not available.
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	Not available.
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Not available.
		Enzyme Strip 1 - well F	Not available.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Not available.
		Enzyme Strip 2 - well G	Not available.
pH	:	RE Buffer	7.9
		SSC Buffer	Not available.
		BSA Solution	Not available.
		DNA Ligase	7.4
		Ligation Solution	Not available.
		Wash Solution	7.5
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.

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		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	7.5
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	Not available.
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Not available.
		Enzyme Strip 1 - well F	5.5 to 8
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Not available.
		Enzyme Strip 2 - well G	Not available.
Melting point	:	RE Buffer	0°C (32°F)
		SSC Buffer	0°C (32°F)
		BSA Solution	20°C (68°F)
		DNA Ligase	-23°C (-9.4°F)
		Ligation Solution	0°C (32°F)
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	0°C (32°F)
		Primer 2	0°C (32°F)
		HaloPlex Indexing Primer Cassette 1-16	0°C (32°F)
		Hybridization Solution	Not available.
		Enrichment Control DNA	0°C (32°F)
		HaloPlex Magnetic Beads	~0°C (32°F)
		ClearSeq Probe	0°C (32°F)
		Enzyme Strip 1 - well A, B, C, D, E, G, H	20°C (68°F)
		Enzyme Strip 1 - well F	20°C (68°F)
		Enzyme Strip 2 - well A, B, C, D, E, F, H	20°C (68°F)
		Enzyme Strip 2 - well G	20°C (68°F)
Boiling point	:	RE Buffer	100°C (212°F)
		SSC Buffer	100°C (212°F)
		BSA Solution	182°C (359.6°F)
		DNA Ligase	182°C (359.6°F)
		Ligation Solution	100°C (212°F)
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	100°C (212°F)
		Primer 2	100°C (212°F)
		HaloPlex Indexing Primer Cassette 1-16	100°C (212°F)
		Hybridization Solution	Not available.
		Enrichment Control DNA	100°C (212°F)
		HaloPlex Magnetic Beads	100°C (212°F)
		ClearSeq Probe	100°C (212°F)
		Enzyme Strip 1 - well A, B, C, D, E, G, H	182°C (359.6°F)
		Enzyme Strip 1 - well F	182°C (359.6°F)
		Enzyme Strip 2 - well A, B, C, D, E, F, H	182°C (359.6°F)
		Enzyme Strip 2 - well G	182°C (359.6°F)

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Flash point	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	Closed cup: 160°C (320°F)
		DNA Ligase	Open cup: 176°C (348.8°F)
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	Not available.
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Closed cup: 160°C (320°F)
		Enzyme Strip 1 - well F	Closed cup: >200°C (>392°F)
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Closed cup: 160°C (320°F)
		Enzyme Strip 2 - well G	Closed cup: 160°C (320°F)
Evaporation rate	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	Not available.
		DNA Ligase	Not available.
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	Not available.
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Not available.
		Enzyme Strip 1 - well F	Not available.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Not available.
		Enzyme Strip 2 - well G	Not available.
Flammability (solid, gas)	:	RE Buffer	Not applicable.
		SSC Buffer	Not applicable.
		BSA Solution	Not applicable.
		DNA Ligase	Not applicable.
		Ligation Solution	Not applicable.
		Wash Solution	Not applicable.
		Capture Solution	Not applicable.
		Primer 1	Not applicable.
		Primer 2	Not applicable.
		HaloPlex Indexing Primer Cassette 1-16	Not applicable.
		Hybridization Solution	Not applicable.
		Enrichment Control DNA	Not applicable.
		HaloPlex Magnetic Beads	Not applicable.
		ClearSeq Probe	Not applicable.
		Enzyme Strip 1 - well A, B, C, D, E,	Not applicable.

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		G, H	
		Enzyme Strip 1 - well F	Not applicable.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Not applicable.
		Enzyme Strip 2 - well G	Not applicable.
Lower and upper explosive (flammable) limits	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	Not available.
		DNA Ligase	Not available.
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	Not available.
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Not available.
		Enzyme Strip 1 - well F	Lower: 0.9%
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Not available.
		Enzyme Strip 2 - well G	Not available.
Vapor pressure	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	<0.13 kPa (<1 mm Hg) [room temperature]
		DNA Ligase	0.4 kPa (3 mm Hg) [room temperature]
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	2.3 kPa (17.5 mm Hg) [room temperature]
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	<0.13 kPa (<1 mm Hg) [room temperature]
		Enzyme Strip 1 - well F	<0.13 kPa (<1 mm Hg) [room temperature]
		Enzyme Strip 2 - well A, B, C, D, E, F, H	<0.13 kPa (<1 mm Hg) [room temperature]
		Enzyme Strip 2 - well G	<0.13 kPa (<1 mm Hg) [room temperature]
Vapor density	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	3.1 [Air = 1]
		DNA Ligase	3.1 [Air = 1]
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.

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		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	0.624 [Air = 1]
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	3.1 [Air = 1]
		Enzyme Strip 1 - well F	3.1 [Air = 1]
		Enzyme Strip 2 - well A, B, C, D, E, F, H	3.1 [Air = 1]
		Enzyme Strip 2 - well G	3.1 [Air = 1]
Relative density	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	1.262
		DNA Ligase	1.261
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	1.4 to 1.5
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	1.262
		Enzyme Strip 1 - well F	1.262
		Enzyme Strip 2 - well A, B, C, D, E, F, H	1.262
		Enzyme Strip 2 - well G	1.262
Solubility	:	RE Buffer	Easily soluble in the following materials: cold water and hot water.
		SSC Buffer	Easily soluble in the following materials: cold water and hot water.
		BSA Solution	Soluble in the following materials: cold water and hot water.
		DNA Ligase	Easily soluble in the following materials: cold water and hot water.
		Ligation Solution	Easily soluble in the following materials: cold water and hot water.
		Wash Solution	Soluble in the following materials: cold water and hot water.
		Capture Solution	Easily soluble in the following materials: cold water and hot water.
		Primer 1	Easily soluble in the following materials: cold water and hot water.
		Primer 2	Easily soluble in the following materials: cold water and hot water.
		HaloPlex Indexing Primer Cassette 1-16	Easily soluble in the following materials: cold water and hot water.
		Hybridization Solution	Soluble in the following materials: cold water and hot water.
		Enrichment Control DNA	Easily soluble in the following materials: cold water and hot water.
		HaloPlex Magnetic Beads	Insoluble in the following materials: cold water and hot water.
		ClearSeq Probe	Easily soluble in the following materials: cold water

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			and hot water.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Soluble in the following materials: cold water and hot water.
		Enzyme Strip 1 - well F	Soluble in the following materials: cold water and hot water.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Soluble in the following materials: cold water and hot water.
		Enzyme Strip 2 - well G	Soluble in the following materials: cold water and hot water.
Solubility in water	:	Not available.	
Partition coefficient: n-octanol/water	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	Not available.
		DNA Ligase	Not available.
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	Not available.
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Not available.
		Enzyme Strip 1 - well F	Not available.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Not available.
		Enzyme Strip 2 - well G	Not available.
Auto-ignition temperature	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	370°C (698°F)
		DNA Ligase	Not available.
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	Not available.
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	370°C (698°F)
		Enzyme Strip 1 - well F	370°C (698°F)
		Enzyme Strip 2 - well A, B, C, D, E, F, H	370°C (698°F)
		Enzyme Strip 2 - well G	370°C (698°F)

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Decomposition temperature	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	Not available.
		DNA Ligase	Not available.
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	Not available.
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Not available.
		Enzyme Strip 1 - well F	Not available.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Not available.
		Enzyme Strip 2 - well G	Not available.
Viscosity	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	Not available.
		DNA Ligase	Not available.
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer Cassette 1-16	Not available.
		Hybridization Solution	Not available.
		Enrichment Control DNA	Not available.
		HaloPlex Magnetic Beads	Not available.
		ClearSeq Probe	Not available.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Not available.
		Enzyme Strip 1 - well F	Not available.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Not available.
		Enzyme Strip 2 - well G	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	:	RE Buffer	No specific test data related to reactivity available for this product or its ingredients.
		SSC Buffer	No specific test data related to reactivity available for this product or its ingredients.
		BSA Solution	No specific test data related to reactivity available for this product or its ingredients.
		DNA Ligase	No specific test data related to reactivity available for this product or its ingredients.
		Ligation Solution	No specific test data related to reactivity available for this product or its ingredients.
		Wash Solution	No specific test data related to reactivity available for this product or its ingredients.
		Capture Solution	No specific test data related to reactivity available for this product or its ingredients.

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	Primer 1	No specific test data related to reactivity available for this product or its ingredients.
	Primer 2	No specific test data related to reactivity available for this product or its ingredients.
	HaloPlex Indexing Primer Cassette 1-16	No specific test data related to reactivity available for this product or its ingredients.
	Hybridization Solution	No specific test data related to reactivity available for this product or its ingredients.
	Enrichment Control DNA	No specific test data related to reactivity available for this product or its ingredients.
	HaloPlex Magnetic Beads	No specific test data related to reactivity available for this product or its ingredients.
	ClearSeq Probe	No specific test data related to reactivity available for this product or its ingredients.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	No specific test data related to reactivity available for this product or its ingredients.
	Enzyme Strip 1 - well F	No specific test data related to reactivity available for this product or its ingredients.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	No specific test data related to reactivity available for this product or its ingredients.
	Enzyme Strip 2 - well G	No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability :

RE Buffer	The product is stable.
SSC Buffer	The product is stable.
BSA Solution	The product is stable.
DNA Ligase	The product is stable.
Ligation Solution	The product is stable.
Wash Solution	The product is stable.
Capture Solution	The product is stable.
Primer 1	The product is stable.
Primer 2	The product is stable.
HaloPlex Indexing Primer Cassette 1-16	The product is stable.
Hybridization Solution	The product is stable.
Enrichment Control DNA	The product is stable.
HaloPlex Magnetic Beads	The product is stable.
ClearSeq Probe	The product is stable.
Enzyme Strip 1 - well A, B, C, D, E, G, H	The product is stable.
Enzyme Strip 1 - well F	The product is stable.
Enzyme Strip 2 - well A, B, C, D, E, F, H	The product is stable.
Enzyme Strip 2 - well G	The product is stable.

10.3 Possibility of hazardous reactions :

RE Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
SSC Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
BSA Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
DNA Ligase	Under normal conditions of storage and use, hazardous reactions will not occur.
Ligation Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
Wash Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
Capture Solution	Under normal conditions of storage and use,

Section 10. Stability and reactivity

		hazardous reactions will not occur.
	Primer 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	Primer 2	Under normal conditions of storage and use, hazardous reactions will not occur.
	HaloPlex Indexing Primer Cassette 1-16	Under normal conditions of storage and use, hazardous reactions will not occur.
	Hybridization Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
	Enrichment Control DNA	Under normal conditions of storage and use, hazardous reactions will not occur.
	HaloPlex Magnetic Beads	Under normal conditions of storage and use, hazardous reactions will not occur.
	ClearSeq Probe	Under normal conditions of storage and use, hazardous reactions will not occur.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	Under normal conditions of storage and use, hazardous reactions will not occur.
	Enzyme Strip 1 - well F	Under normal conditions of storage and use, hazardous reactions will not occur.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	Under normal conditions of storage and use, hazardous reactions will not occur.
	Enzyme Strip 2 - well G	Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid :

RE Buffer	No specific data.
SSC Buffer	No specific data.
BSA Solution	No specific data.
DNA Ligase	No specific data.
Ligation Solution	No specific data.
Wash Solution	No specific data.
Capture Solution	No specific data.
Primer 1	No specific data.
Primer 2	No specific data.
HaloPlex Indexing Primer Cassette 1-16	No specific data.
Hybridization Solution	No specific data.
Enrichment Control DNA	No specific data.
HaloPlex Magnetic Beads	No specific data.
ClearSeq Probe	No specific data.
Enzyme Strip 1 - well A, B, C, D, E, G, H	No specific data.
Enzyme Strip 1 - well F	No specific data.
Enzyme Strip 2 - well A, B, C, D, E, F, H	No specific data.
Enzyme Strip 2 - well G	No specific data.

10.5 Incompatible materials :

RE Buffer	No specific data.
SSC Buffer	No specific data.
BSA Solution	No specific data.
DNA Ligase	No specific data.
Ligation Solution	No specific data.
Wash Solution	No specific data.
Capture Solution	No specific data.
Primer 1	No specific data.
Primer 2	No specific data.
HaloPlex Indexing Primer Cassette 1-16	No specific data.
Hybridization Solution	No specific data.
Enrichment Control DNA	No specific data.

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	HaloPlex Magnetic Beads	No specific data.
	ClearSeq Probe	No specific data.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	No specific data.
	Enzyme Strip 1 - well F	No specific data.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	No specific data.
	Enzyme Strip 2 - well G	No specific data.
10.6 Hazardous decomposition products :	RE Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SSC Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	BSA Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	DNA Ligase	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Ligation Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Wash Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Capture Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Primer 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Primer 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	HaloPlex Indexing Primer Cassette 1-16	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Hybridization Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Enrichment Control DNA	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	HaloPlex Magnetic Beads	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	ClearSeq Probe	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Enzyme Strip 1 - well F	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	Under normal conditions of storage and use, hazardous decomposition products should not be

Section 10. Stability and reactivity

Enzyme Strip 2 - well G	produced. 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
BSA Solution				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
DNA Ligase				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Ligation Solution				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Wash Solution				
Formamide	LD50 Dermal	Rabbit	17 g/kg	-
	LD50 Oral	Rat	4000 mg/kg	-
Sodium chloride	LC50 Inhalation Dusts and mists	Rat	>42 g/m³	1 hours
	LD50 Oral	Rat	3000 mg/kg	-
Capture Solution				
Sodium chloride	LC50 Inhalation Dusts and mists	Rat	>42 g/m³	1 hours
	LD50 Oral	Rat	3000 mg/kg	-
Hybridization Solution				
Formamide	LD50 Dermal	Rabbit	17 g/kg	-
	LD50 Oral	Rat	4000 mg/kg	-
Sodium chloride	LC50 Inhalation Dusts and mists	Rat	>42 g/m³	1 hours
	LD50 Oral	Rat	3000 mg/kg	-
Enzyme Strip 1 - well A, B, C, D, E, G, H				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Enzyme Strip 1 - well F				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
2-Mercaptoethanol	LD50 Dermal	Rabbit	200 mg/kg	-
	LD50 Oral	Rat	244 mg/kg	-
Enzyme Strip 2 - well A, B, C, D, E, F, H				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Enzyme Strip 2 - well G				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Sodium chloride	LC50 Inhalation Dusts and mists	Rat	>42 g/m³	1 hours
	LD50 Oral	Rat	3000 mg/kg	-

Irritation/Corrosion

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Product/ingredient name	Result	Species	Score	Exposure	Observation
BSA Solution					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
DNA Ligase					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Ligation Solution					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Wash Solution					
Formamide	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Capture Solution					
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Hybridization Solution					
Formamide	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Enzyme Strip 1 - well A, B, C, D, E, G, H					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Enzyme Strip 1 - well F					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
2-Mercaptoethanol	Eyes - Severe irritant	Rabbit	-	2 milligrams	-

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Enzyme Strip 2 - well A, B, C, D, E, F, H					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Enzyme Strip 2 - well G					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Enzyme Strip 1 - well F 2-Mercaptoethanol	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
BSA Solution Glycerol	Category 2	Inhalation	kidneys
DNA Ligase Glycerol	Category 2	Inhalation	kidneys
Ligation Solution Glycerol	Category 2	Inhalation	kidneys
Enzyme Strip 1 - well A, B, C, D, E, G, H Glycerol	Category 2	Inhalation	kidneys
Enzyme Strip 1 - well F Glycerol	Category 2	Inhalation	kidneys

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Enzyme Strip 2 - well A, B, C, D, E, F, H Glycerol	Category 2	Inhalation	kidneys
Enzyme Strip 2 - well G Glycerol	Category 2	Inhalation	kidneys

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact :

RE Buffer	No known significant effects or critical hazards.
SSC Buffer	No known significant effects or critical hazards.
BSA Solution	No known significant effects or critical hazards.
DNA Ligase	Causes eye irritation.
Ligation Solution	No known significant effects or critical hazards.
Wash Solution	Causes serious eye irritation.
Capture Solution	No known significant effects or critical hazards.
Primer 1	No known significant effects or critical hazards.
Primer 2	No known significant effects or critical hazards.
HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
Hybridization Solution	Causes serious eye irritation.
Enrichment Control DNA	No known significant effects or critical hazards.
HaloPlex Magnetic Beads	No known significant effects or critical hazards.
ClearSeq Probe	No known significant effects or critical hazards.
Enzyme Strip 1 - well A, B, C, D, E, G, H	Causes eye irritation.
Enzyme Strip 1 - well F	Causes eye irritation.
Enzyme Strip 2 - well A, B, C, D, E, F, H	Causes eye irritation.
Enzyme Strip 2 - well G	Causes eye irritation.

Inhalation :

RE Buffer	No known significant effects or critical hazards.
SSC Buffer	No known significant effects or critical hazards.
BSA Solution	No known significant effects or critical hazards.
DNA Ligase	No known significant effects or critical hazards.
Ligation Solution	No known significant effects or critical hazards.
Wash Solution	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Capture Solution	No known significant effects or critical hazards.
Primer 1	No known significant effects or critical hazards.
Primer 2	No known significant effects or critical hazards.
HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
Hybridization Solution	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Enrichment Control DNA	No known significant effects or critical hazards.
HaloPlex Magnetic Beads	No known significant effects or critical hazards.
ClearSeq Probe	No known significant effects or critical hazards.
Enzyme Strip 1 - well A, B, C, D, E, G, H	No known significant effects or critical hazards.
Enzyme Strip 1 - well F	No known significant effects or critical hazards.
Enzyme Strip 2 - well A, B, C, D, E,	No known significant effects or critical hazards.

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		F, H	
		Enzyme Strip 2 - well G	No known significant effects or critical hazards.
Skin contact	:	RE Buffer	No known significant effects or critical hazards.
		SSC Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		DNA Ligase	No known significant effects or critical hazards.
		Ligation Solution	No known significant effects or critical hazards.
		Wash Solution	No known significant effects or critical hazards.
		Capture Solution	No known significant effects or critical hazards.
		Primer 1	No known significant effects or critical hazards.
		Primer 2	No known significant effects or critical hazards.
		HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
		Hybridization Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		HaloPlex Magnetic Beads	No known significant effects or critical hazards.
		ClearSeq Probe	No known significant effects or critical hazards.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No known significant effects or critical hazards.
		Enzyme Strip 1 - well F	May cause an allergic skin reaction.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No known significant effects or critical hazards.
		Enzyme Strip 2 - well G	No known significant effects or critical hazards.
Ingestion	:	RE Buffer	No known significant effects or critical hazards.
		SSC Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		DNA Ligase	May be irritating to mouth, throat and stomach.
		Ligation Solution	No known significant effects or critical hazards.
		Wash Solution	Irritating to mouth, throat and stomach.
		Capture Solution	No known significant effects or critical hazards.
		Primer 1	No known significant effects or critical hazards.
		Primer 2	No known significant effects or critical hazards.
		HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
		Hybridization Solution	Irritating to mouth, throat and stomach.
		Enrichment Control DNA	No known significant effects or critical hazards.
		HaloPlex Magnetic Beads	No known significant effects or critical hazards.
		ClearSeq Probe	No known significant effects or critical hazards.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	May be irritating to mouth, throat and stomach.
		Enzyme Strip 1 - well F	May be irritating to mouth, throat and stomach.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	May be irritating to mouth, throat and stomach.
		Enzyme Strip 2 - well G	May be irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	RE Buffer	No specific data.
		SSC Buffer	No specific data.
		BSA Solution	No specific data.
		DNA Ligase	Adverse symptoms may include the following: irritation watering redness
		Ligation Solution	No specific data.
		Wash Solution	Adverse symptoms may include the following: pain or irritation watering

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			redness
		Capture Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HaloPlex Indexing Primer Cassette 1-16	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: pain or irritation watering redness
		Enrichment Control DNA	No specific data.
		HaloPlex Magnetic Beads	No specific data.
		ClearSeq Probe	No specific data.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	Adverse symptoms may include the following: irritation watering redness
		Enzyme Strip 1 - well F	Adverse symptoms may include the following: irritation watering redness
		Enzyme Strip 2 - well A, B, C, D, E, F, H	Adverse symptoms may include the following: irritation watering redness
		Enzyme Strip 2 - well G	Adverse symptoms may include the following: irritation watering redness
Inhalation	:	RE Buffer	No specific data.
		SSC Buffer	No specific data.
		BSA Solution	No specific data.
		DNA Ligase	No specific data.
		Ligation Solution	No specific data.
		Wash Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		Capture Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HaloPlex Indexing Primer Cassette 1-16	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		Enrichment Control DNA	No specific data.
		HaloPlex Magnetic Beads	No specific data.
		ClearSeq Probe	No specific data.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No specific data.
		Enzyme Strip 1 - well F	No specific data.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No specific data.
		Enzyme Strip 2 - well G	No specific data.

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Skin contact	:	RE Buffer	No specific data.
		SSC Buffer	No specific data.
		BSA Solution	No specific data.
		DNA Ligase	No specific data.
		Ligation Solution	No specific data.
		Wash Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		Capture Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HaloPlex Indexing Primer Cassette 1-16	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		Enrichment Control DNA	No specific data.
		HaloPlex Magnetic Beads	No specific data.
		ClearSeq Probe	No specific data.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No specific data.
		Enzyme Strip 1 - well F	Adverse symptoms may include the following: irritation redness
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No specific data.
		Enzyme Strip 2 - well G	No specific data.
Ingestion	:	RE Buffer	No specific data.
		SSC Buffer	No specific data.
		BSA Solution	No specific data.
		DNA Ligase	No specific data.
		Ligation Solution	No specific data.
		Wash Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		Capture Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HaloPlex Indexing Primer Cassette 1-16	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		Enrichment Control DNA	No specific data.
		HaloPlex Magnetic Beads	No specific data.
		ClearSeq Probe	No specific data.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No specific data.
		Enzyme Strip 1 - well F	No specific data.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No specific data.
		Enzyme Strip 2 - well G	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Section 11. Toxicological information

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

Not available.

General :	RE Buffer	No known significant effects or critical hazards.
	SSC Buffer	No known significant effects or critical hazards.
	BSA Solution	May cause damage to organs through prolonged or repeated exposure.
	DNA Ligase	May cause damage to organs through prolonged or repeated exposure.
	Ligation Solution	May cause damage to organs through prolonged or repeated exposure.
	Wash Solution	No known significant effects or critical hazards.
	Capture Solution	No known significant effects or critical hazards.
	Primer 1	No known significant effects or critical hazards.
	Primer 2	No known significant effects or critical hazards.
	HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
	Hybridization Solution	No known significant effects or critical hazards.
	Enrichment Control DNA	No known significant effects or critical hazards.
	HaloPlex Magnetic Beads	No known significant effects or critical hazards.
	ClearSeq Probe	No known significant effects or critical hazards.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	May cause damage to organs through prolonged or repeated exposure.
	Enzyme Strip 1 - well F	May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
	Enzyme Strip 2 - well A, B, C, D, E, F, H	May cause damage to organs through prolonged or repeated exposure.
	Enzyme Strip 2 - well G	May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity :	RE Buffer	No known significant effects or critical hazards.
	SSC Buffer	No known significant effects or critical hazards.
	BSA Solution	No known significant effects or critical hazards.
	DNA Ligase	No known significant effects or critical hazards.
	Ligation Solution	No known significant effects or critical hazards.
	Wash Solution	No known significant effects or critical hazards.
	Capture Solution	No known significant effects or critical hazards.
	Primer 1	No known significant effects or critical hazards.
	Primer 2	No known significant effects or critical hazards.
	HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
	Hybridization Solution	No known significant effects or critical hazards.
	Enrichment Control DNA	No known significant effects or critical hazards.
	HaloPlex Magnetic Beads	No known significant effects or critical hazards.
	ClearSeq Probe	No known significant effects or critical hazards.
	Enzyme Strip 1 - well A, B, C, D, E, G, H	No known significant effects or critical hazards.
	Enzyme Strip 1 - well F	No known significant effects or critical hazards.

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		Enzyme Strip 2 - well A, B, C, D, E, F, H	No known significant effects or critical hazards.
		Enzyme Strip 2 - well G	No known significant effects or critical hazards.
Mutagenicity	:	RE Buffer	No known significant effects or critical hazards.
		SSC Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		DNA Ligase	No known significant effects or critical hazards.
		Ligation Solution	No known significant effects or critical hazards.
		Wash Solution	No known significant effects or critical hazards.
		Capture Solution	No known significant effects or critical hazards.
		Primer 1	No known significant effects or critical hazards.
		Primer 2	No known significant effects or critical hazards.
		HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
		Hybridization Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		HaloPlex Magnetic Beads	No known significant effects or critical hazards.
		ClearSeq Probe	No known significant effects or critical hazards.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No known significant effects or critical hazards.
		Enzyme Strip 1 - well F	No known significant effects or critical hazards.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No known significant effects or critical hazards.
		Enzyme Strip 2 - well G	No known significant effects or critical hazards.
Teratogenicity	:	RE Buffer	No known significant effects or critical hazards.
		SSC Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		DNA Ligase	No known significant effects or critical hazards.
		Ligation Solution	No known significant effects or critical hazards.
		Wash Solution	May damage the unborn child.
		Capture Solution	No known significant effects or critical hazards.
		Primer 1	No known significant effects or critical hazards.
		Primer 2	No known significant effects or critical hazards.
		HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
		Hybridization Solution	May damage the unborn child.
		Enrichment Control DNA	No known significant effects or critical hazards.
		HaloPlex Magnetic Beads	No known significant effects or critical hazards.
		ClearSeq Probe	No known significant effects or critical hazards.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No known significant effects or critical hazards.
		Enzyme Strip 1 - well F	No known significant effects or critical hazards.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No known significant effects or critical hazards.
		Enzyme Strip 2 - well G	No known significant effects or critical hazards.
Developmental effects	:	RE Buffer	No known significant effects or critical hazards.
		SSC Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		DNA Ligase	No known significant effects or critical hazards.
		Ligation Solution	No known significant effects or critical hazards.
		Wash Solution	No known significant effects or critical hazards.
		Capture Solution	No known significant effects or critical hazards.
		Primer 1	No known significant effects or critical hazards.
		Primer 2	No known significant effects or critical hazards.
		HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
		Hybridization Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.

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		HaloPlex Magnetic Beads	No known significant effects or critical hazards.
		ClearSeq Probe	No known significant effects or critical hazards.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No known significant effects or critical hazards.
		Enzyme Strip 1 - well F	No known significant effects or critical hazards.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No known significant effects or critical hazards.
		Enzyme Strip 2 - well G	No known significant effects or critical hazards.
Fertility effects	:	RE Buffer	No known significant effects or critical hazards.
		SSC Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		DNA Ligase	No known significant effects or critical hazards.
		Ligation Solution	No known significant effects or critical hazards.
		Wash Solution	No known significant effects or critical hazards.
		Capture Solution	No known significant effects or critical hazards.
		Primer 1	No known significant effects or critical hazards.
		Primer 2	No known significant effects or critical hazards.
		HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
		Hybridization Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		HaloPlex Magnetic Beads	No known significant effects or critical hazards.
		ClearSeq Probe	No known significant effects or critical hazards.
		Enzyme Strip 1 - well A, B, C, D, E, G, H	No known significant effects or critical hazards.
		Enzyme Strip 1 - well F	No known significant effects or critical hazards.
		Enzyme Strip 2 - well A, B, C, D, E, F, H	No known significant effects or critical hazards.
		Enzyme Strip 2 - well G	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Wash Solution	
Oral	14423.1 mg/kg
Capture Solution	
Oral	51724.1 mg/kg
Hybridization Solution	
Oral	8119.1 mg/kg
Enzyme Strip 2 - well G	
Oral	200000 mg/kg

Other information	:	RE Buffer	Not available.
		SSC Buffer	Not available.
		BSA Solution	Not available.
		DNA Ligase	Not available.
		Ligation Solution	Not available.
		Wash Solution	Not available.
		Capture Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HaloPlex Indexing Primer	Not available.

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Cassette 1-16	
Hybridization Solution	Not available.
Enrichment Control DNA	Not available.
HaloPlex Magnetic Beads	Not available.
ClearSeq Probe	Not available.
Enzyme Strip 1 - well A, B, C, D, E, G, H	Not available.
Enzyme Strip 1 - well F	Not available.
Enzyme Strip 2 - well A, B, C, D, E, F, H	Not available.
Enzyme Strip 2 - well G	Not available.

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Wash Solution			
Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 28.85 mg/dm3 Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1661 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks
Capture Solution			
Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 28.85 mg/dm3 Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1661 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks
Hybridization Solution			
Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 28.85 mg/dm3 Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1661 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks
Enzyme Strip 2 - well G			
Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 28.85 mg/dm3 Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours

Section 12. Ecological information

	Acute LC50 1661 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
BSA Solution			
Glycerol	-1.76	-	low
DNA Ligase			
Glycerol	-1.76	-	low
Ligation Solution			
Glycerol	-1.76	-	low
Wash Solution			
Formamide	-0.82	-	low
Hybridization Solution			
Formamide	-0.82	-	low
Enzyme Strip 1 - well A, B, C, D, E, G, H			
Glycerol	-1.76	-	low
Enzyme Strip 1 - well F			
Glycerol	-1.76	-	low
2-Mercaptoethanol	-0.056	-	low
Enzyme Strip 2 - well A, B, C, D, E, F, H			
Glycerol	-1.76	-	low
Enzyme Strip 2 - well G			
Glycerol	-1.76	-	low

12.4 Mobility in soil

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

12.5 Other adverse effects

RE Buffer	No known significant effects or critical hazards.
SSC Buffer	No known significant effects or critical hazards.
BSA Solution	No known significant effects or critical hazards.
DNA Ligase	No known significant effects or critical hazards.
Ligation Solution	No known significant effects or critical hazards.
Wash Solution	No known significant effects or critical hazards.
Capture Solution	No known significant effects or critical hazards.
Primer 1	No known significant effects or critical hazards.
Primer 2	No known significant effects or critical hazards.

Section 12. Ecological information

HaloPlex Indexing Primer Cassette 1-16	No known significant effects or critical hazards.
Hybridization Solution	No known significant effects or critical hazards.
Enrichment Control DNA	No known significant effects or critical hazards.
HaloPlex Magnetic Beads	No known significant effects or critical hazards.
ClearSeq Probe	No known significant effects or critical hazards.
Enzyme Strip 1 - well A, B, C, D, E, G, H	No known significant effects or critical hazards.
Enzyme Strip 1 - well F	No known significant effects or critical hazards.
Enzyme Strip 2 - well A, B, C, D, E, F, H	No known significant effects or critical hazards.
Enzyme Strip 2 - well G	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

Regulatory information

DOT / IMDG / IATA : Not regulated.

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

United States inventory (TSCA 8b): Not determined.

Clean Water Act (CWA) 311: Edetic acid

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

Clean Air Act Section 602 Class I Substances : Not listed

Section 15. Regulatory information

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 (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
HaloPlex Magnetic Beads						
Sodium azide	< 0.1	Yes.	500	-	1000	-

SARA 304 RQ : 36000000 lbs / 16344000 kg

SARA 311/312

Classification : Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
BSA Solution						
Glycerol	1 - 5	No.	No.	No.	Yes.	Yes.
DNA Ligase						
Glycerol	30 - 60	No.	No.	No.	Yes.	Yes.
Ligation Solution						
Glycerol	1 - 5	No.	No.	No.	Yes.	Yes.
Wash Solution						
Formamide	10 - 30	No.	No.	No.	Yes.	Yes.
Sodium chloride	5 - 10	No.	No.	No.	Yes.	No.
Capture Solution						
Sodium chloride	5 - 10	No.	No.	No.	Yes.	No.
Hybridization Solution						
Formamide	30 - 60	No.	No.	No.	Yes.	Yes.
Sodium chloride	10 - 30	No.	No.	No.	Yes.	No.
Enzyme Strip 1 - well A, B, C, D, E, G, H						
Glycerol	30 - 60	No.	No.	No.	Yes.	Yes.
Enzyme Strip 1 - well F						
Glycerol	30 - 60	No.	No.	No.	Yes.	Yes.
2-Mercaptoethanol	0.1 - 1	Yes.	No.	No.	Yes.	No.
Enzyme Strip 2 - well A, B, C, D, E, F, H						
Glycerol	30 - 60	No.	No.	No.	Yes.	Yes.

Section 15. Regulatory information

Enzyme Strip 2 - well G						
Glycerol	30 - 60	No.	No.	No.	Yes.	Yes.
Sodium chloride	1 - 5	No.	No.	No.	Yes.	No.

State regulations

Massachusetts : The following components are listed: GLYCERINE MIST; FORMAMIDE

New York : None of the components are listed.

New Jersey : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL; FORMAMIDE

Pennsylvania : The following components are listed: 1,2,3-PROPANETRIOL; FORMAMIDE

California Prop. 65

No products were found.

Canada inventory : Not determined.

International regulations

International lists : **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory: Not determined.
Korea inventory: Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan inventory (CSNN): Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

Section 16. Other information

History

Date of issue : 08/21/2014.

Date of previous issue : No previous validation.

Version : 1

Indicates information that has changed from previously issued version.

Note * : *** HaloPlex Indexing Primer Cassette 1-16:5190-5366_5190-5367_5190-5368_5190-5369 5190-5370_5190-5371_5190-5372_5190-5373_5190-5374_5190-5375_5190-5376_5190-5377 5190-5378_5190-5379_5190-5380_5190-5381**

Notice to reader

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