Conforms to Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals

SAFETY DATA SHEET

Agilent Technologies

HaloPlex HS Prepack Reagents - ILM - 48 reactions, Part Number 5190-8630

Section 1. Identification

Product identifier : HaloPlex HS Prepack Reagents - ILM - 48 reactions, Part Number 5190-8630

Part no. (chemical kit) : 5190-8630

Part no. :

RE Buffer	5190-7952
BSA Solution	5190-7953
Enrichment Control DNA	5190-7956
Hybridization Solution	5190-7957
HS Hybridization Stop Solution	5190-7958
10 mM rATP	5190-7959
HS Ligation Solution	5190-7960
HS DNA Ligase	5190-7961
HS Capture Solution	5190-7962
HS Wash 1 Solution	5190-7963
HS Wash 2 Solution	5190-7964
Primer 1	5190-7965
Primer 2	5190-7966
HS Elution Buffer	5190-7967
Herculase II Fusion DNA Polymerase	5190-7968
Herculase II Reaction Buffer	5190-7969
100 mM dNTP Mix	5190-7970
HaloPlex HS ILM Indexing Plate	5190-7971
Enzyme Strip 1	5190-7954
Enzyme Strip 2	5190-7955

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

Identified uses : Analytical reagent.

RE Buffer	1.7 ml (48 reactions)
BSA Solution	0.04 ml (48 reactions)
Enrichment Control DNA	0.31 ml (48 reactions)
Hybridization Solution	2.5 ml (48 reactions)
HS Hybridization Stop Solution	1.9 ml (48 reactions)
10 mM rATP	0.02 ml (48 reactions)
HS Ligation Solution	0.72 ml (48 reactions)
HS DNA Ligase	0.18 ml (48 reactions)
HS Capture Solution	2.7 ml (48 reactions)
HS Wash 1 Solution	6.7 ml (48 reactions)
HS Wash 2 Solution	10.8 ml (48 reactions)
Primer 1	0.29 ml (48 reactions)
Primer 2	2 x 0.29 ml (48 reactions)
HS Elution Buffer	15 ml (48 reactions)
Herculase II Fusion DNA Polymerase	0.29 ml (48 reactions)
Herculase II Reaction Buffer	2.2 ml (48 reactions)
100 mM dNTP Mix	0.06 ml (48 reactions)
HaloPlex HS ILM Indexing Plate	48 x 0.0075 ml (48 reactions)
Enzyme Strip 1	0.2 ml (48 reactions)
Enzyme Strip 2	0.2 ml (48 reactions)

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

Section 1. Identification

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

Section 2. Hazard(s) identification

Classification of the substance or mixture

Hybridization Solution

H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
H351	CARCINOGENICITY - Category 2
H360	REPRODUCTIVE TOXICITY - Category 1
H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

HS Hybridization Stop Solution

H320	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

HS DNA Ligase

H320	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

Herculase II Fusion DNA Polymerase

H320	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

Enzyme Strip 1

H320	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

Enzyme Strip 2

H320	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

BSA Solution	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1%
Hybridization Solution	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 32%
HS Ligation Solution	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1.1%
100 mM dNTP Mix	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5.4%

GHS label elements

Hazard pictograms : Hybridization Solution

Signal word :

RE Buffer	No signal word.
BSA Solution	No signal word.
Enrichment Control DNA	No signal word.
Hybridization Solution	DANGER
HS Hybridization Stop Solution	WARNING
10 mM rATP	No signal word.
HS Ligation Solution	No signal word.
HS DNA Ligase	WARNING
HS Capture Solution	No signal word.
HS Wash 1 Solution	No signal word.
HS Wash 2 Solution	No signal word.
Primer 1	No signal word.
Primer 2	No signal word.
HS Elution Buffer	No signal word.
Herculase II Fusion DNA Polymerase	WARNING

Section 2. Hazard(s) identification

	Herculase II Reaction Buffer	No signal word.
	100 mM dNTP Mix	No signal word.
	HaloPlex HS ILM Indexing Plate	No signal word.
	Enzyme Strip 1	WARNING
	Enzyme Strip 2	WARNING
Hazard statements :	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	No known significant effects or critical hazards.
	Enrichment Control DNA	No known significant effects or critical hazards.
	Hybridization Solution	H319 - Causes serious eye irritation. H351 - Suspected of causing cancer. H360 - May damage fertility or the unborn child. H373 - May cause damage to organs through prolonged or repeated exposure.
	HS Hybridization Stop Solution	H320 - Causes eye irritation.
	10 mM rATP	No known significant effects or critical hazards.
	HS Ligation Solution	No known significant effects or critical hazards.
	HS DNA Ligase	H320 - Causes eye irritation.
	HS Capture Solution	No known significant effects or critical hazards.
	HS Wash 1 Solution	No known significant effects or critical hazards.
	HS Wash 2 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.
	HS Elution Buffer	No known significant effects or critical hazards.
	Herculase II Fusion DNA Polymerase	H320 - Causes eye irritation.
	Herculase II Reaction Buffer	No known significant effects or critical hazards.
	100 mM dNTP Mix	No known significant effects or critical hazards.
	HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
	Enzyme Strip 1	H320 - Causes eye irritation.
	Enzyme Strip 2	H320 - Causes eye irritation.

Precautionary statements

Prevention :	RE Buffer	Not applicable.
	BSA Solution	Not applicable.
	Enrichment Control DNA	Not applicable.
	Hybridization Solution	P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection. P260 - Do not breathe vapour.
	HS Hybridization Stop Solution	Not applicable.
	10 mM rATP	Not applicable.
	HS Ligation Solution	Not applicable.
	HS DNA Ligase	Not applicable.
	HS Capture Solution	Not applicable.
	HS Wash 1 Solution	Not applicable.
	HS Wash 2 Solution	Not applicable.
	Primer 1	Not applicable.
	Primer 2	Not applicable.
	HS Elution Buffer	Not applicable.
	Herculase II Fusion DNA Polymerase	Not applicable.
	Herculase II Reaction Buffer	Not applicable.
	100 mM dNTP Mix	Not applicable.
	HaloPlex HS ILM Indexing Plate	Not applicable.
	Enzyme Strip 1	Not applicable.
	Enzyme Strip 2	Not applicable.

Section 2. Hazard(s) identification

Response :

RE Buffer	Not applicable.
BSA Solution	Not applicable.
Enrichment Control DNA	Not applicable.
Hybridization Solution	P308 + P313 - IF exposed or concerned: Get medical advice or attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
HS Hybridization Stop Solution	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
10 mM rATP	Not applicable.
HS Ligation Solution	Not applicable.
HS DNA Ligase	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
HS Capture Solution	Not applicable.
HS Wash 1 Solution	Not applicable.
HS Wash 2 Solution	Not applicable.
Primer 1	Not applicable.
Primer 2	Not applicable.
HS Elution Buffer	Not applicable.
Herculase II Fusion DNA Polymerase	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Herculase II Reaction Buffer	Not applicable.
100 mM dNTP Mix	Not applicable.
HaloPlex HS ILM Indexing Plate	Not applicable.
Enzyme Strip 1	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Enzyme Strip 2	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage :

RE Buffer	Not applicable.
BSA Solution	Not applicable.
Enrichment Control DNA	Not applicable.
Hybridization Solution	Not applicable.
HS Hybridization Stop Solution	Not applicable.
10 mM rATP	Not applicable.
HS Ligation Solution	Not applicable.
HS DNA Ligase	Not applicable.
HS Capture Solution	Not applicable.
HS Wash 1 Solution	Not applicable.
HS Wash 2 Solution	Not applicable.
Primer 1	Not applicable.
Primer 2	Not applicable.
HS Elution Buffer	Not applicable.
Herculase II Fusion DNA Polymerase	Not applicable.
Herculase II Reaction Buffer	Not applicable.

Section 2. Hazard(s) identification

		100 mM dNTP Mix	Not applicable.
		HaloPlex HS ILM Indexing Plate	Not applicable.
		Enzyme Strip 1	Not applicable.
		Enzyme Strip 2	Not applicable.
Disposal	:	RE Buffer	Not applicable.
		BSA Solution	Not applicable.
		Enrichment Control DNA	Not applicable.
		Hybridization Solution	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		HS Hybridization Stop Solution	Not applicable.
		10 mM rATP	Not applicable.
		HS Ligation Solution	Not applicable.
		HS DNA Ligase	Not applicable.
		HS Capture Solution	Not applicable.
		HS Wash 1 Solution	Not applicable.
		HS Wash 2 Solution	Not applicable.
		Primer 1	Not applicable.
		Primer 2	Not applicable.
		HS Elution Buffer	Not applicable.
		Herculase II Fusion DNA Polymerase	Not applicable.
		Herculase II Reaction Buffer	Not applicable.
		100 mM dNTP Mix	Not applicable.
		HaloPlex HS ILM Indexing Plate	Not applicable.
		Enzyme Strip 1	Not applicable.
		Enzyme Strip 2	Not applicable.

Supplemental label elements

Additional warning phrases	:	RE Buffer	Not applicable.
		BSA Solution	Not applicable.
		Enrichment Control DNA	Not applicable.
		Hybridization Solution	Not applicable.
		HS Hybridization Stop Solution	Not applicable.
		10 mM rATP	Not applicable.
		HS Ligation Solution	Not applicable.
		HS DNA Ligase	Not applicable.
		HS Capture Solution	Not applicable.
		HS Wash 1 Solution	Not applicable.
		HS Wash 2 Solution	Not applicable.
		Primer 1	Not applicable.
		Primer 2	Not applicable.
		HS Elution Buffer	Not applicable.
		Herculase II Fusion DNA Polymerase	Not applicable.
		Herculase II Reaction Buffer	Not applicable.
		100 mM dNTP Mix	Not applicable.
		HaloPlex HS ILM Indexing Plate	Not applicable.
		Enzyme Strip 1	Not applicable.
		Enzyme Strip 2	Not applicable.

Section 2. Hazard(s) identification

Other hazards which do not result in classification :

RE Buffer	None known.
BSA Solution	None known.
Enrichment Control DNA	None known.
Hybridization Solution	None known.
HS Hybridization Stop Solution	None known.
10 mM rATP	None known.
HS Ligation Solution	None known.
HS DNA Ligase	None known.
HS Capture Solution	None known.
HS Wash 1 Solution	None known.
HS Wash 2 Solution	None known.
Primer 1	None known.
Primer 2	None known.
HS Elution Buffer	None known.
Herculase II Fusion DNA Polymerase	None known.
Herculase II Reaction Buffer	None known.
100 mM dNTP Mix	None known.
HaloPlex HS ILM Indexing Plate	None known.
Enzyme Strip 1	None known.
Enzyme Strip 2	None known.

Section 3. Composition and ingredient information

Substance/mixture :

RE Buffer	Mixture
BSA Solution	Mixture
Enrichment Control DNA	Mixture
Hybridization Solution	Mixture
HS Hybridization Stop Solution	Mixture
10 mM rATP	Mixture
HS Ligation Solution	Mixture
HS DNA Ligase	Mixture
HS Capture Solution	Mixture
HS Wash 1 Solution	Mixture
HS Wash 2 Solution	Mixture
Primer 1	Mixture
Primer 2	Mixture
HS Elution Buffer	Mixture
Herculase II Fusion DNA Polymerase	Mixture
Herculase II Reaction Buffer	Mixture
100 mM dNTP Mix	Mixture
HaloPlex HS ILM Indexing Plate	Mixture
Enzyme Strip 1	Mixture
Enzyme Strip 2	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
BSA Solution		
Glycerol	<10	56-81-5
Hybridization Solution		
Formamide	≥30 - ≤60	75-12-7

Section 3. Composition and ingredient information

HS Hybridization Stop Solution		
Polyethylene glycol	≥30 - ≤60	25322-68-3
HS DNA Ligase		
Glycerol	≥30 - ≤60	56-81-5
Herculase II Fusion DNA Polymerase		
Glycerol	≥30 - ≤60	56-81-5
Enzyme Strip 1		
Glycerol	≥30 - ≤60	56-81-5
Enzyme Strip 2		
Glycerol	≥30 - ≤60	56-81-5

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

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

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact :

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.
BSA Solution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
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.
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.
HS Hybridization Stop 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. If irritation persists, get medical attention.
10 mM rATP	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.
HS Ligation Solution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
HS DNA Ligase	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

Section 4. First aid measures

		Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	HS Capture Solution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	HS Wash 1 Solution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	HS Wash 2 Solution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	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.
	HS Elution 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.
	Herculase II Fusion DNA Polymerase	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	Herculase II Reaction 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.
	100 mM dNTP Mix	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 HS ILM Indexing Plate	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	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	Enzyme Strip 2	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
Inhalation :	RE 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. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 4. First aid measures

Enrichment Control DNA	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.
HS Hybridization Stop 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 adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
10 mM rATP	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
HS Ligation Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
HS 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 if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
HS Capture Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
HS Wash 1 Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
HS Wash 2 Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical 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.
HS Elution Buffer	Remove victim to fresh air and keep at rest in a

Section 4. First aid measures

		position comfortable for breathing. Get medical attention if symptoms occur.
	Herculase II Fusion DNA Polymerase	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Herculase II Reaction Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	100 mM dNTP Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	HaloPlex HS ILM Indexing Plate	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Enzyme Strip 1	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Enzyme Strip 2	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact :	RE 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. Get medical attention if symptoms occur.
	Enrichment Control DNA	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

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			least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		HS Hybridization Stop Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		10 mM rATP	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		HS Ligation Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		HS DNA Ligase	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		HS Capture Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		HS Wash 1 Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		HS Wash 2 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.
		Primer 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		HS Elution Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		Herculase II Fusion DNA Polymerase	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		Herculase II Reaction Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		100 mM dNTP Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		HaloPlex HS ILM Indexing Plate	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		Enzyme Strip 1	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		Enzyme Strip 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	RE Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
		BSA Solution	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give

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

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	personnel. Get medical attention if symptoms occur.
HS Wash 1 Solution	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
HS Wash 2 Solution	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Primer 1	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Primer 2	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
HS Elution Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Herculase II Fusion DNA Polymerase	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Herculase II Reaction Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
100 mM dNTP Mix	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
HaloPlex HS ILM Indexing Plate	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Enzyme Strip 1	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention

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		if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Enzyme Strip 2	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	RE Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		Hybridization Solution	Causes serious eye irritation.
		HS Hybridization Stop Solution	Causes eye irritation.
		10 mM rATP	No known significant effects or critical hazards.
		HS Ligation Solution	No known significant effects or critical hazards.
		HS DNA Ligase	Causes eye irritation.
		HS Capture Solution	No known significant effects or critical hazards.
		HS Wash 1 Solution	No known significant effects or critical hazards.
		HS Wash 2 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.
		HS Elution Buffer	No known significant effects or critical hazards.
		Herculase II Fusion DNA Polymerase	Causes eye irritation.
		Herculase II Reaction Buffer	No known significant effects or critical hazards.
		100 mM dNTP Mix	No known significant effects or critical hazards.
		HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
		Enzyme Strip 1	Causes eye irritation.
		Enzyme Strip 2	Causes eye irritation.
Inhalation	:	RE Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		Hybridization Solution	No known significant effects or critical hazards.
		HS Hybridization Stop Solution	No known significant effects or critical hazards.
		10 mM rATP	No known significant effects or critical hazards.
		HS Ligation Solution	No known significant effects or critical hazards.
		HS DNA Ligase	No known significant effects or critical hazards.
		HS Capture Solution	No known significant effects or critical hazards.
		HS Wash 1 Solution	No known significant effects or critical hazards.
		HS Wash 2 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.
		HS Elution Buffer	No known significant effects or critical hazards.
		Herculase II Fusion DNA	No known significant effects or critical hazards.

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		Polymerase	
		Herculase II Reaction Buffer	No known significant effects or critical hazards.
		100 mM dNTP Mix	No known significant effects or critical hazards.
		HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
		Enzyme Strip 1	No known significant effects or critical hazards.
		Enzyme Strip 2	No known significant effects or critical hazards.
Skin contact	:	RE Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		Hybridization Solution	No known significant effects or critical hazards.
		HS Hybridization Stop Solution	No known significant effects or critical hazards.
		10 mM rATP	No known significant effects or critical hazards.
		HS Ligation Solution	No known significant effects or critical hazards.
		HS DNA Ligase	No known significant effects or critical hazards.
		HS Capture Solution	No known significant effects or critical hazards.
		HS Wash 1 Solution	No known significant effects or critical hazards.
		HS Wash 2 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.
		HS Elution Buffer	No known significant effects or critical hazards.
		Herculase II Fusion DNA Polymerase	No known significant effects or critical hazards.
		Herculase II Reaction Buffer	No known significant effects or critical hazards.
		100 mM dNTP Mix	No known significant effects or critical hazards.
		HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
		Enzyme Strip 1	No known significant effects or critical hazards.
		Enzyme Strip 2	No known significant effects or critical hazards.
Ingestion	:	RE Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		Hybridization Solution	No known significant effects or critical hazards.
		HS Hybridization Stop Solution	No known significant effects or critical hazards.
		10 mM rATP	No known significant effects or critical hazards.
		HS Ligation Solution	No known significant effects or critical hazards.
		HS DNA Ligase	No known significant effects or critical hazards.
		HS Capture Solution	No known significant effects or critical hazards.
		HS Wash 1 Solution	No known significant effects or critical hazards.
		HS Wash 2 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.
		HS Elution Buffer	No known significant effects or critical hazards.
		Herculase II Fusion DNA Polymerase	No known significant effects or critical hazards.
		Herculase II Reaction Buffer	No known significant effects or critical hazards.
		100 mM dNTP Mix	No known significant effects or critical hazards.
		HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
		Enzyme Strip 1	No known significant effects or critical hazards.
		Enzyme Strip 2	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	RE Buffer	No specific data.
		BSA Solution	No specific data.
		Enrichment Control DNA	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: pain or irritation watering redness
		HS Hybridization Stop Solution	Adverse symptoms may include the following:

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		irritation watering redness
	10 mM rATP	No specific data.
	HS Ligation Solution	No specific data.
	HS DNA Ligase	Adverse symptoms may include the following: irritation watering redness
	HS Capture Solution	No specific data.
	HS Wash 1 Solution	No specific data.
	HS Wash 2 Solution	No specific data.
	Primer 1	No specific data.
	Primer 2	No specific data.
	HS Elution Buffer	No specific data.
	Herculase II Fusion DNA Polymerase	Adverse symptoms may include the following: irritation watering redness
	Herculase II Reaction Buffer	No specific data.
	100 mM dNTP Mix	No specific data.
	HaloPlex HS ILM Indexing Plate	No specific data.
	Enzyme Strip 1	Adverse symptoms may include the following: irritation watering redness
	Enzyme Strip 2	Adverse symptoms may include the following: irritation watering redness
Inhalation :	RE Buffer	No specific data.
	BSA Solution	No specific data.
	Enrichment Control DNA	No specific data.
	Hybridization Solution	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
	HS Hybridization Stop Solution	No specific data.
	10 mM rATP	No specific data.
	HS Ligation Solution	No specific data.
	HS DNA Ligase	No specific data.
	HS Capture Solution	No specific data.
	HS Wash 1 Solution	No specific data.
	HS Wash 2 Solution	No specific data.
	Primer 1	No specific data.
	Primer 2	No specific data.
	HS Elution Buffer	No specific data.
	Herculase II Fusion DNA Polymerase	No specific data.
	Herculase II Reaction Buffer	No specific data.
	100 mM dNTP Mix	No specific data.
	HaloPlex HS ILM Indexing Plate	No specific data.
	Enzyme Strip 1	No specific data.
	Enzyme Strip 2	No specific data.

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Skin contact	:	RE Buffer	No specific data.
		BSA Solution	No specific data.
		Enrichment Control DNA	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		HS Hybridization Stop Solution	No specific data.
		10 mM rATP	No specific data.
		HS Ligation Solution	No specific data.
		HS DNA Ligase	No specific data.
		HS Capture Solution	No specific data.
		HS Wash 1 Solution	No specific data.
		HS Wash 2 Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HS Elution Buffer	No specific data.
		Herculase II Fusion DNA Polymerase	No specific data.
		Herculase II Reaction Buffer	No specific data.
		100 mM dNTP Mix	No specific data.
		HaloPlex HS ILM Indexing Plate	No specific data.
		Enzyme Strip 1	No specific data.
		Enzyme Strip 2	No specific data.
Ingestion	:	RE Buffer	No specific data.
		BSA Solution	No specific data.
		Enrichment Control DNA	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		HS Hybridization Stop Solution	No specific data.
		10 mM rATP	No specific data.
		HS Ligation Solution	No specific data.
		HS DNA Ligase	No specific data.
		HS Capture Solution	No specific data.
		HS Wash 1 Solution	No specific data.
		HS Wash 2 Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HS Elution Buffer	No specific data.
		Herculase II Fusion DNA Polymerase	No specific data.
		Herculase II Reaction Buffer	No specific data.
		100 mM dNTP Mix	No specific data.
		HaloPlex HS ILM Indexing Plate	No specific data.
		Enzyme Strip 1	No specific data.
		Enzyme Strip 2	No specific data.

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.
		BSA 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

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		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.
	HS Hybridization Stop Solution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	10 mM rATP	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	HS Ligation Solution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	HS DNA Ligase	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	HS Capture 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.
	HS Wash 1 Solution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	HS Wash 2 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.
	HS Elution Buffer	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Herculase II Fusion DNA Polymerase	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Herculase II Reaction Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	100 mM dNTP Mix	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.
	HaloPlex HS ILM Indexing Plate	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Enzyme Strip 1	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Enzyme Strip 2	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments :	RE Buffer	No specific treatment.
	BSA Solution	No specific treatment.
	Enrichment Control DNA	No specific treatment.
	Hybridization Solution	No specific treatment.
	HS Hybridization Stop Solution	No specific treatment.
	10 mM rATP	No specific treatment.

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	HS Ligation Solution	No specific treatment.
	HS DNA Ligase	No specific treatment.
	HS Capture Solution	No specific treatment.
	HS Wash 1 Solution	No specific treatment.
	HS Wash 2 Solution	No specific treatment.
	Primer 1	No specific treatment.
	Primer 2	No specific treatment.
	HS Elution Buffer	No specific treatment.
	Herculase II Fusion DNA Polymerase	No specific treatment.
	Herculase II Reaction Buffer	No specific treatment.
	100 mM dNTP Mix	No specific treatment.
	HaloPlex HS ILM Indexing Plate	No specific treatment.
	Enzyme Strip 1	No specific treatment.
	Enzyme Strip 2	No specific treatment.
Protection of first-aiders :	RE 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.
	Enrichment Control DNA	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	HS Hybridization Stop 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.
	10 mM rATP	No action shall be taken involving any personal risk or without suitable training.
	HS Ligation Solution	No action shall be taken involving any personal risk or without suitable training.
	HS 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.
	HS Capture Solution	No action shall be taken involving any personal risk or without suitable training.
	HS Wash 1 Solution	No action shall be taken involving any personal risk or without suitable training.
	HS Wash 2 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.
	HS Elution Buffer	No action shall be taken involving any personal risk or without suitable training.
	Herculase II Fusion DNA Polymerase	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.
	Herculase II Reaction Buffer	No action shall be taken involving any personal risk or without suitable training.
	100 mM dNTP Mix	No action shall be taken involving any personal risk or without suitable training.
	HaloPlex HS ILM Indexing	No action shall be taken involving any personal risk

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Plate	or without suitable training.
Enzyme Strip 1	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	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)

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Extinguishing media

Suitable extinguishing media :

RE Buffer	Use an extinguishing agent suitable for the surrounding fire.
BSA Solution	Use an extinguishing agent suitable for the surrounding fire.
Enrichment Control DNA	Use an extinguishing agent suitable for the surrounding fire.
Hybridization Solution	Use an extinguishing agent suitable for the surrounding fire.
HS Hybridization Stop Solution	Use an extinguishing agent suitable for the surrounding fire.
10 mM rATP	Use an extinguishing agent suitable for the surrounding fire.
HS Ligation Solution	Use an extinguishing agent suitable for the surrounding fire.
HS DNA Ligase	Use an extinguishing agent suitable for the surrounding fire.
HS Capture Solution	Use an extinguishing agent suitable for the surrounding fire.
HS Wash 1 Solution	Use an extinguishing agent suitable for the surrounding fire.
HS Wash 2 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.
HS Elution Buffer	Use an extinguishing agent suitable for the surrounding fire.
Herculase II Fusion DNA Polymerase	Use an extinguishing agent suitable for the surrounding fire.
Herculase II Reaction Buffer	Use an extinguishing agent suitable for the surrounding fire.
100 mM dNTP Mix	Use an extinguishing agent suitable for the surrounding fire.
HaloPlex HS ILM Indexing Plate	Use an extinguishing agent suitable for the surrounding fire.
Enzyme Strip 1	Use an extinguishing agent suitable for the surrounding fire.
Enzyme Strip 2	Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media :

RE Buffer	None known.
BSA Solution	None known.
Enrichment Control DNA	None known.
Hybridization Solution	None known.
HS Hybridization Stop Solution	None known.
10 mM rATP	None known.
HS Ligation Solution	None known.

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HS DNA Ligase	None known.
HS Capture Solution	None known.
HS Wash 1 Solution	None known.
HS Wash 2 Solution	None known.
Primer 1	None known.
Primer 2	None known.
HS Elution Buffer	None known.
Herculase II Fusion DNA Polymerase	None known.
Herculase II Reaction Buffer	None known.
100 mM dNTP Mix	None known.
HaloPlex HS ILM Indexing Plate	None known.
Enzyme Strip 1	None known.
Enzyme Strip 2	None known.

Specific hazards arising from the chemical :

RE 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.
Enrichment Control DNA	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.
HS Hybridization Stop Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
10 mM rATP	In a fire or if heated, a pressure increase will occur and the container may burst.
HS Ligation Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
HS DNA Ligase	In a fire or if heated, a pressure increase will occur and the container may burst.
HS Capture Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
HS Wash 1 Solution	In a fire or if heated, a pressure increase will occur and the container may burst.
HS Wash 2 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.
HS Elution Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
Herculase II Fusion DNA Polymerase	In a fire or if heated, a pressure increase will occur and the container may burst.
Herculase II Reaction Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
100 mM dNTP Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
HaloPlex HS ILM Indexing Plate	In a fire or if heated, a pressure increase will occur and the container may burst.
Enzyme Strip 1	In a fire or if heated, a pressure increase will occur and the container may burst.
Enzyme Strip 2	In a fire or if heated, a pressure increase will occur and the container may burst.

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Hazardous thermal decomposition products	:	RE Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
		BSA Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
		Enrichment Control DNA	No specific data.
		Hybridization Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
		HS Hybridization Stop Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		10 mM rATP	No specific data.
		HS Ligation Solution	Decomposition products may include the following materials: halogenated compounds metal oxide/oxides
		HS DNA Ligase	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		HS Capture Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
		HS Wash 1 Solution	No specific data.
		HS Wash 2 Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HS Elution Buffer	No specific data.
		Herculase II Fusion DNA Polymerase	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		Herculase II Reaction Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides
		100 mM dNTP Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides
		HaloPlex HS ILM Indexing Plate	No specific data.
		Enzyme Strip 1	Decomposition products may include the following

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		materials: carbon dioxide carbon monoxide
	Enzyme Strip 2	Decomposition products may include the following materials: carbon dioxide carbon monoxide
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.
	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.
	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.
	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.
	HS Hybridization Stop 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.
	10 mM rATP	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.
	HS 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.
	HS 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.
	HS 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.
	HS Wash 1 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.
	HS Wash 2 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.
	HS Elution Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or

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			without suitable training.
		Herculase II Fusion DNA Polymerase	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.
		Herculase II Reaction 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.
		100 mM dNTP Mix	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 HS ILM Indexing Plate	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	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	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.
		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.
		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.
		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.
		HS Hybridization Stop Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		10 mM rATP	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		HS 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.
		HS 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.
		HS Capture Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		HS Wash 1 Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

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	(SCBA) with a full face-piece operated in positive pressure mode.
HS Wash 2 Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive 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.
HS Elution Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Herculase II Fusion DNA Polymerase	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Herculase II Reaction Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
100 mM dNTP Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
HaloPlex HS ILM Indexing Plate	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	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	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: RE Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	BSA Solution	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	Enrichment Control DNA	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal

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	protective equipment.
Hybridization Solution	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
HS Hybridization Stop Solution	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
10 mM rATP	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
HS Ligation Solution	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
HS DNA Ligase	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
HS Capture Solution	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
HS Wash 1 Solution	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
HS Wash 2 Solution	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Primer 1	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
Primer 2	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding

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		areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	HS Elution Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	Herculase II Fusion DNA Polymerase	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Herculase II Reaction Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	100 mM dNTP Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	HaloPlex HS ILM Indexing Plate	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	Enzyme Strip 1	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Enzyme Strip 2	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders :	RE Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	BSA Solution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Enrichment Control DNA	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the

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	information in "For non-emergency personnel".
Hybridization Solution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
HS Hybridization Stop Solution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
10 mM rATP	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".
HS Ligation Solution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
HS DNA Ligase	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".
HS Capture Solution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
HS Wash 1 Solution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
HS Wash 2 Solution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Primer 1	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Primer 2	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
HS Elution Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Herculase II Fusion DNA Polymerase	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".
Herculase II Reaction Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
100 mM dNTP Mix	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".
HaloPlex HS ILM Indexing Plate	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".
Enzyme Strip 1	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on

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		suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Enzyme Strip 2	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions :	RE Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	BSA Solution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Enrichment Control DNA	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Hybridization Solution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	HS Hybridization Stop Solution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	10 mM rATP	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	HS Ligation Solution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	HS DNA Ligase	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	HS Capture Solution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	HS Wash 1 Solution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	HS Wash 2 Solution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Primer 1	Avoid dispersal of spilt material and runoff and

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	contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Primer 2	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
HS Elution Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Herculase II Fusion DNA Polymerase	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Herculase II Reaction Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
100 mM dNTP Mix	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
HaloPlex HS ILM Indexing Plate	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Enzyme Strip 1	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Enzyme Strip 2	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for 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.
	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.
	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

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	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.
HS Hybridization Stop 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.
10 mM rATP	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.
HS 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.
HS 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.
HS 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, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
HS Wash 1 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.
HS Wash 2 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.
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.
HS Elution Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.

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	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.
Herculase II Fusion DNA Polymerase	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.
Herculase II Reaction 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.
100 mM dNTP Mix	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 HS ILM Indexing Plate	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	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	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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Precautions for safe handling

Protective measures :

RE Buffer	Put on appropriate personal protective equipment (see Section 8).
BSA Solution	Put on appropriate personal protective equipment (see Section 8).
Enrichment Control DNA	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 breathe vapour or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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HS Hybridization Stop Solution	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
10 mM rATP	Put on appropriate personal protective equipment (see Section 8).
HS Ligation Solution	Put on appropriate personal protective equipment (see Section 8).
HS DNA Ligase	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
HS Capture Solution	Put on appropriate personal protective equipment (see Section 8).
HS Wash 1 Solution	Put on appropriate personal protective equipment (see Section 8).
HS Wash 2 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).
HS Elution Buffer	Put on appropriate personal protective equipment (see Section 8).
Herculase II Fusion DNA Polymerase	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Herculase II Reaction Buffer	Put on appropriate personal protective equipment (see Section 8).
100 mM dNTP Mix	Put on appropriate personal protective equipment (see Section 8).
HaloPlex HS ILM Indexing Plate	Put on appropriate personal protective equipment (see Section 8).
Enzyme Strip 1	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Enzyme Strip 2	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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Advice on general occupational hygiene	:	RE Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
		BSA Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
		Enrichment Control DNA	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.
		Hybridization Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
		HS Hybridization Stop Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
		10 mM rATP	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.
		HS Ligation Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
		HS DNA Ligase	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.
		HS Capture Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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HS Wash 1 Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
HS Wash 2 Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Primer 1	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Primer 2	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
HS Elution Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Herculase II Fusion DNA Polymerase	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.
Herculase II Reaction Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
100 mM dNTP Mix	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.
HaloPlex HS ILM Indexing Plate	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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	Enzyme Strip 1	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Enzyme Strip 2	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	BSA 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 upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	HS Hybridization Stop 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

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	drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
10 mM rATP	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
HS Ligation 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 upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
HS 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
HS 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 upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
HS Wash 1 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 upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
HS Wash 2 Solution	Store in accordance with local regulations. Store in

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

Section 7. Handling and storage

	environmental contamination. See Section 10 for incompatible materials before handling or use.
100 mM dNTP Mix	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
HaloPlex HS ILM Indexing Plate	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Enzyme Strip 1	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Enzyme Strip 2	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
BSA Solution	
Glycerol	**Safe Work Australia (Australia, 12/2019).** TWA: 10 mg/m³ 8 hours.
Hybridization Solution	
Formamide	**Safe Work Australia (Australia, 12/2019). Absorbed through skin.** TWA: 18 mg/m³ 8 hours. TWA: 10 ppm 8 hours.

Section 8. Exposure controls and personal protection

HS Hybridization Stop Solution Polyethylene glycol	**DFG MAC-values list (Germany, 10/2021).** PEAK: 400 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction TWA: 200 mg/m³ 8 hours. Form: inhalable fraction
HS DNA Ligase Glycerol	**Safe Work Australia (Australia, 12/2019).** TWA: 10 mg/m³ 8 hours.
Herculase II Fusion DNA Polymerase Glycerol	**Safe Work Australia (Australia, 12/2019).** TWA: 10 mg/m³ 8 hours.
Enzyme Strip 1 Glycerol	**Safe Work Australia (Australia, 12/2019).** TWA: 10 mg/m³ 8 hours.
Enzyme Strip 2 Glycerol	**Safe Work Australia (Australia, 12/2019).** TWA: 10 mg/m³ 8 hours.

Biological exposure indices

No exposure indices known.

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

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

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

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

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

Section 8. Exposure controls and personal protection

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

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

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state :

RE Buffer	Liquid.
BSA Solution	Liquid.
Enrichment Control DNA	Liquid.
Hybridization Solution	Liquid.
HS Hybridization Stop Solution	Liquid.
10 mM rATP	Liquid.
HS Ligation Solution	Liquid.
HS DNA Ligase	Liquid.
HS Capture Solution	Liquid.
HS Wash 1 Solution	Liquid.
HS Wash 2 Solution	Liquid.
Primer 1	Liquid.
Primer 2	Liquid.
HS Elution Buffer	Liquid.
Herculase II Fusion DNA Polymerase	Liquid.
Herculase II Reaction Buffer	Liquid.
100 mM dNTP Mix	Liquid.
HaloPlex HS ILM Indexing Plate	Liquid.
Enzyme Strip 1	Liquid.
Enzyme Strip 2	Liquid.

Colour :

RE Buffer	Not available.
BSA Solution	Not available.
Enrichment Control DNA	Not available.
Hybridization Solution	Not available.
HS Hybridization Stop Solution	Not available.
10 mM rATP	Not available.
HS Ligation Solution	Not available.
HS DNA Ligase	Not available.
HS Capture Solution	Not available.
HS Wash 1 Solution	Not available.
HS Wash 2 Solution	Not available.
Primer 1	Not available.
Primer 2	Not available.
HS Elution Buffer	Not available.
Herculase II Fusion DNA Polymerase	Not available.
Herculase II Reaction Buffer	Not available.
100 mM dNTP Mix	Not available.
HaloPlex HS ILM Indexing Plate	Not available.
Enzyme Strip 1	Not available.
Enzyme Strip 2	Not available.

Section 9. Physical and chemical properties and safety characteristics

Odour	:	RE Buffer	Not available.
		BSA Solution	Not available.
		Enrichment Control DNA	Not available.
		Hybridization Solution	Not available.
		HS Hybridization Stop Solution	Not available.
		10 mM rATP	Not available.
		HS Ligation Solution	Not available.
		HS DNA Ligase	Not available.
		HS Capture Solution	Not available.
		HS Wash 1 Solution	Not available.
		HS Wash 2 Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HS Elution Buffer	Not available.
		Herculase II Fusion DNA Polymerase	Not available.
		Herculase II Reaction Buffer	Not available.
		100 mM dNTP Mix	Not available.
		HaloPlex HS ILM Indexing Plate	Not available.
		Enzyme Strip 1	Not available.
		Enzyme Strip 2	Not available.
Odour threshold	:	RE Buffer	Not available.
		BSA Solution	Not available.
		Enrichment Control DNA	Not available.
		Hybridization Solution	Not available.
		HS Hybridization Stop Solution	Not available.
		10 mM rATP	Not available.
		HS Ligation Solution	Not available.
		HS DNA Ligase	Not available.
		HS Capture Solution	Not available.
		HS Wash 1 Solution	Not available.
		HS Wash 2 Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HS Elution Buffer	Not available.
		Herculase II Fusion DNA Polymerase	Not available.
		Herculase II Reaction Buffer	Not available.
		100 mM dNTP Mix	Not available.
		HaloPlex HS ILM Indexing Plate	Not available.
		Enzyme Strip 1	Not available.
		Enzyme Strip 2	Not available.
pH	:	RE Buffer	7.9
		BSA Solution	7
		Enrichment Control DNA	Not available.
		Hybridization Solution	7.5
		HS Hybridization Stop Solution	Not available.
		10 mM rATP	7
		HS Ligation Solution	8
		HS DNA Ligase	7.5
		HS Capture Solution	7.5
		HS Wash 1 Solution	Not available.
		HS Wash 2 Solution	8.5
		Primer 1	Not available.
		Primer 2	Not available.
		HS Elution Buffer	8.5
		Herculase II Fusion DNA	8.2

Section 9. Physical and chemical properties and safety characteristics

		Polymerase	
		Herculase II Reaction Buffer	10
		100 mM dNTP Mix	7 to 8
		HaloPlex HS ILM Indexing Plate	Not available.
		Enzyme Strip 1	Not available.
		Enzyme Strip 2	Not available.
Melting point/freezing point	:	RE Buffer	0°C (32°F)
		BSA Solution	Not available.
		Enrichment Control DNA	0°C (32°F)
		Hybridization Solution	Not available.
		HS Hybridization Stop Solution	Not available.
		10 mM rATP	0°C (32°F)
		HS Ligation Solution	0°C (32°F)
		HS DNA Ligase	Not available.
		HS Capture Solution	Not available.
		HS Wash 1 Solution	0°C (32°F)
		HS Wash 2 Solution	0°C (32°F)
		Primer 1	0°C (32°F)
		Primer 2	0°C (32°F)
		HS Elution Buffer	0°C (32°F)
		Herculase II Fusion DNA Polymerase	Not available.
		Herculase II Reaction Buffer	Not available.
		100 mM dNTP Mix	Not available.
		HaloPlex HS ILM Indexing Plate	0°C (32°F)
		Enzyme Strip 1	Not available.
		Enzyme Strip 2	Not available.
Boiling point, initial boiling point, and boiling range	:	RE Buffer	100°C (212°F)
		BSA Solution	Not available.
		Enrichment Control DNA	100°C (212°F)
		Hybridization Solution	Not available.
		HS Hybridization Stop Solution	Not available.
		10 mM rATP	100°C (212°F)
		HS Ligation Solution	100°C (212°F)
		HS DNA Ligase	Not available.
		HS Capture Solution	Not available.
		HS Wash 1 Solution	100°C (212°F)
		HS Wash 2 Solution	100°C (212°F)
		Primer 1	100°C (212°F)
		Primer 2	100°C (212°F)
		HS Elution Buffer	100°C (212°F)
		Herculase II Fusion DNA Polymerase	Not available.
		Herculase II Reaction Buffer	Not available.
		100 mM dNTP Mix	Not available.
		HaloPlex HS ILM Indexing Plate	100°C (212°F)
		Enzyme Strip 1	Not available.
		Enzyme Strip 2	Not available.
Flash point	:		

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Closed cup °C	Closed cup °F	Closed cup Method	Open cup °C	Open cup °F	Open cup Method
BSA Solution						
Glycerol				177	350.6	
Hybridization Solution						
Formamide				152	305.6	DIN EN ISO 2592
HS Hybridization Stop Solution						
Polyethylene glycol	171 to 235	339.8 to 455		199 to 238	390.2 to 460.4	
HS DNA Ligase						
Glycerol				177	350.6	
HS Capture Solution						
Acetic acid, (ethylenedinitrilo) tetra-, disodium salt, dihydrate	>100	>212				
Herculase II Fusion DNA Polymerase						
Glycerol				177	350.6	
Enzyme Strip 1						
Glycerol				177	350.6	
Enzyme Strip 2						
Glycerol				177	350.6	

Evaporation rate :

RE Buffer	Not available.
BSA Solution	Not available.
Enrichment Control DNA	Not available.
Hybridization Solution	Not available.
HS Hybridization Stop Solution	Not available.
10 mM rATP	Not available.
HS Ligation Solution	Not available.
HS DNA Ligase	Not available.
HS Capture Solution	Not available.
HS Wash 1 Solution	Not available.
HS Wash 2 Solution	Not available.

Section 9. Physical and chemical properties and safety characteristics

		Primer 1	Not available.
		Primer 2	Not available.
		HS Elution Buffer	Not available.
		Herculase II Fusion DNA Polymerase	Not available.
		Herculase II Reaction Buffer	Not available.
		100 mM dNTP Mix	Not available.
		HaloPlex HS ILM Indexing Plate	Not available.
		Enzyme Strip 1	Not available.
		Enzyme Strip 2	Not available.
Flammability	:	RE Buffer	Not applicable.
		BSA Solution	Not applicable.
		Enrichment Control DNA	Not applicable.
		Hybridization Solution	Not applicable.
		HS Hybridization Stop Solution	Not applicable.
		10 mM rATP	Not applicable.
		HS Ligation Solution	Not applicable.
		HS DNA Ligase	Not applicable.
		HS Capture Solution	Not applicable.
		HS Wash 1 Solution	Not applicable.
		HS Wash 2 Solution	Not applicable.
		Primer 1	Not applicable.
		Primer 2	Not applicable.
		HS Elution Buffer	Not applicable.
		Herculase II Fusion DNA Polymerase	Not applicable.
		Herculase II Reaction Buffer	Not applicable.
		100 mM dNTP Mix	Not applicable.
		HaloPlex HS ILM Indexing Plate	Not applicable.
		Enzyme Strip 1	Not applicable.
		Enzyme Strip 2	Not applicable.
Lower and upper explosion limit/flammability limit	:	RE Buffer	Not available.
		BSA Solution	Not available.
		Enrichment Control DNA	Not available.
		Hybridization Solution	Not available.
		HS Hybridization Stop Solution	Not available.
		10 mM rATP	Not available.
		HS Ligation Solution	Not available.
		HS DNA Ligase	Not available.
		HS Capture Solution	Not available.
		HS Wash 1 Solution	Not available.
		HS Wash 2 Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HS Elution Buffer	Not available.
		Herculase II Fusion DNA Polymerase	Not available.
		Herculase II Reaction Buffer	Not available.
		100 mM dNTP Mix	Not available.
		HaloPlex HS ILM Indexing Plate	Not available.
		Enzyme Strip 1	Lower: 0.9%
		Enzyme Strip 2	Not available.
Vapour pressure	:		

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
RE Buffer						
water	23.8	3.2		92.258	12.3	
potassium acetate	0.000000013	0.0000000017				
BSA Solution						
water	23.8	3.2		92.258	12.3	
Glycerol	0.000075	0.00001		0.0025	0.00033	
Enrichment Control DNA						
water	23.8	3.2		92.258	12.3	
Hybridization Solution						
water	23.8	3.2		92.258	12.3	
Formamide	0.05	0.0067				
HS Hybridization Stop Solution						
water	23.8	3.2		92.258	12.3	
Polyethylene glycol	0	0				
10 mM rATP						
water	23.8	3.2		92.258	12.3	
HS Ligation Solution						
water	23.8	3.2		92.258	12.3	
HS DNA Ligase						
water	23.8	3.2		92.258	12.3	
Glycerol	0.000075	0.00001		0.0025	0.00033	
HS Capture Solution						
water	23.8	3.2		92.258	12.3	

Section 9. Physical and chemical properties and safety characteristics

HS Wash 1 Solution						
water	23.8	3.2		92.258	12.3	
HS Wash 2 Solution						
water	23.8	3.2		92.258	12.3	
Primer 1						
water	23.8	3.2		92.258	12.3	
Primer 2						
water	23.8	3.2		92.258	12.3	
HS Elution Buffer						
water	23.8	3.2		92.258	12.3	
Herculase II Fusion DNA Polymerase						
water	23.8	3.2		92.258	12.3	
Glycerol	0.000075	0.00001		0.0025	0.00033	
Herculase II Reaction Buffer						
water	23.8	3.2		92.258	12.3	
Trometamol	<0.00075006	<0.0001				
100 mM dNTP Mix						
water	23.8	3.2		92.258	12.3	
HaloPlex HS ILM Indexing Plate						
water	23.8	3.2		92.258	12.3	
Enzyme Strip 1						
water	23.8	3.2		92.258	12.3	
Glycerol	0.000075	0.00001		0.0025	0.00033	
Enzyme Strip 2						

Section 9. Physical and chemical properties and safety characteristics

water	23.8	3.2		92.258	12.3	
Glycerol	0.000075	0.00001		0.0025	0.00033	

Relative vapour density :

RE Buffer	Not available.
BSA Solution	Not available.
Enrichment Control DNA	Not available.
Hybridization Solution	Not available.
HS Hybridization Stop Solution	Not available.
10 mM rATP	Not available.
HS Ligation Solution	Not available.
HS DNA Ligase	Not available.
HS Capture Solution	Not available.
HS Wash 1 Solution	Not available.
HS Wash 2 Solution	Not available.
Primer 1	Not available.
Primer 2	Not available.
HS Elution Buffer	Not available.
Herculase II Fusion DNA Polymerase	Not available.
Herculase II Reaction Buffer	Not available.
100 mM dNTP Mix	Not available.
HaloPlex HS ILM Indexing Plate	Not available.
Enzyme Strip 1	Not available.
Enzyme Strip 2	Not available.

Relative density :

RE Buffer	Not available.
BSA Solution	Not available.
Enrichment Control DNA	Not available.
Hybridization Solution	Not available.
HS Hybridization Stop Solution	Not available.
10 mM rATP	Not available.
HS Ligation Solution	Not available.
HS DNA Ligase	Not available.
HS Capture Solution	Not available.
HS Wash 1 Solution	Not available.
HS Wash 2 Solution	Not available.
Primer 1	Not available.
Primer 2	Not available.
HS Elution Buffer	Not available.
Herculase II Fusion DNA Polymerase	Not available.
Herculase II Reaction Buffer	Not available.
100 mM dNTP Mix	Not available.
HaloPlex HS ILM Indexing Plate	Not available.
Enzyme Strip 1	Not available.
Enzyme Strip 2	Not available.

Solubility(ies) :

Media	Result
RE Buffer	
water	Soluble
BSA Solution	
water	Soluble
Enrichment Control DNA	
water	Soluble
Hybridization Solution	
water	Soluble
HS Hybridization Stop	

Section 9. Physical and chemical properties and safety characteristics

Solution	
water	Soluble
10 mM rATP	
water	Soluble
HS Ligation Solution	
water	Soluble
HS DNA Ligase	
water	Soluble
HS Capture Solution	
water	Soluble
HS Wash 1 Solution	
water	Soluble
HS Wash 2 Solution	
water	Soluble
Primer 1	
water	Soluble
Primer 2	
water	Soluble
HS Elution Buffer	
water	Soluble
Herculase II Fusion DNA Polymerase	
water	Soluble
Herculase II Reaction Buffer	
water	Soluble
100 mM dNTP Mix	
water	Soluble
HaloPlex HS ILM Indexing Plate	
water	Soluble
Enzyme Strip 1	
water	Soluble
Enzyme Strip 2	
water	Soluble

Partition coefficient: n-octanol/water :

RE Buffer	Not applicable.
BSA Solution	Not applicable.
Enrichment Control DNA	Not applicable.
Hybridization Solution	Not applicable.
HS Hybridization Stop Solution	Not applicable.
10 mM rATP	Not applicable.
HS Ligation Solution	Not applicable.
HS DNA Ligase	Not applicable.
HS Capture Solution	Not applicable.
HS Wash 1 Solution	Not applicable.
HS Wash 2 Solution	Not applicable.
Primer 1	Not applicable.
Primer 2	Not applicable.
HS Elution Buffer	Not applicable.
Herculase II Fusion DNA Polymerase	Not applicable.
Herculase II Reaction Buffer	Not applicable.
100 mM dNTP Mix	Not applicable.
HaloPlex HS ILM Indexing Plate	Not applicable.
Enzyme Strip 1	Not applicable.
Enzyme Strip 2	Not applicable.

Auto-ignition temperature :

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	°C	°F	Method
RE Buffer			
potassium acetate	>410	>770	EU A.16
BSA Solution			
Glycerol	370	698	
Hybridization Solution			
Formamide	>500	>932	ASTM D 2155-66
HS Hybridization Stop Solution			
Polyethylene glycol	360	680	
HS DNA Ligase			
Glycerol	370	698	
Herculase II Fusion DNA Polymerase			
Glycerol	370	698	
Enzyme Strip 1			
Glycerol	370	698	
Enzyme Strip 2			
Glycerol	370	698	

Decomposition temperature :

RE Buffer	Not available.
BSA Solution	Not available.
Enrichment Control DNA	Not available.
Hybridization Solution	Not available.
HS Hybridization Stop Solution	Not available.
10 mM rATP	Not available.
HS Ligation Solution	Not available.
HS DNA Ligase	Not available.
HS Capture Solution	Not available.
HS Wash 1 Solution	Not available.
HS Wash 2 Solution	Not available.
Primer 1	Not available.
Primer 2	Not available.
HS Elution Buffer	Not available.
Herculase II Fusion DNA Polymerase	Not available.
Herculase II Reaction Buffer	Not available.
100 mM dNTP Mix	Not available.
HaloPlex HS ILM Indexing Plate	Not available.

Section 9. Physical and chemical properties and safety characteristics

		Enzyme Strip 1	Not available.
		Enzyme Strip 2	Not available.
Viscosity	:	RE Buffer	Not available.
		BSA Solution	Not available.
		Enrichment Control DNA	Not available.
		Hybridization Solution	Not available.
		HS Hybridization Stop Solution	Not available.
		10 mM rATP	Not available.
		HS Ligation Solution	Not available.
		HS DNA Ligase	Not available.
		HS Capture Solution	Not available.
		HS Wash 1 Solution	Not available.
		HS Wash 2 Solution	Not available.
		Primer 1	Not available.
		Primer 2	Not available.
		HS Elution Buffer	Not available.
		Herculase II Fusion DNA Polymerase	Not available.
		Herculase II Reaction Buffer	Not available.
		100 mM dNTP Mix	Not available.
		HaloPlex HS ILM Indexing Plate	Not available.
		Enzyme Strip 1	Not available.
		Enzyme Strip 2	Not available.

Particle characteristics

Median particle size	:	RE Buffer	Not applicable.
		BSA Solution	Not applicable.
		Enrichment Control DNA	Not applicable.
		Hybridization Solution	Not applicable.
		HS Hybridization Stop Solution	Not applicable.
		10 mM rATP	Not applicable.
		HS Ligation Solution	Not applicable.
		HS DNA Ligase	Not applicable.
		HS Capture Solution	Not applicable.
		HS Wash 1 Solution	Not applicable.
		HS Wash 2 Solution	Not applicable.
		Primer 1	Not applicable.
		Primer 2	Not applicable.
		HS Elution Buffer	Not applicable.
		Herculase II Fusion DNA Polymerase	Not applicable.
		Herculase II Reaction Buffer	Not applicable.
		100 mM dNTP Mix	Not applicable.
		HaloPlex HS ILM Indexing Plate	Not applicable.
		Enzyme Strip 1	Not applicable.
		Enzyme Strip 2	Not applicable.

Section 10. Stability and reactivity

Reactivity	:	RE 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.
		Enrichment Control DNA	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.
		HS Hybridization Stop Solution	No specific test data related to reactivity available for this product or its ingredients.

Section 10. Stability and reactivity

	10 mM rATP	No specific test data related to reactivity available for this product or its ingredients.
	HS Ligation Solution	No specific test data related to reactivity available for this product or its ingredients.
	HS DNA Ligase	No specific test data related to reactivity available for this product or its ingredients.
	HS Capture Solution	No specific test data related to reactivity available for this product or its ingredients.
	HS Wash 1 Solution	No specific test data related to reactivity available for this product or its ingredients.
	HS Wash 2 Solution	No specific test data related to reactivity available for this product or its ingredients.
	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.
	HS Elution Buffer	No specific test data related to reactivity available for this product or its ingredients.
	Herculase II Fusion DNA Polymerase	No specific test data related to reactivity available for this product or its ingredients.
	Herculase II Reaction Buffer	No specific test data related to reactivity available for this product or its ingredients.
	100 mM dNTP Mix	No specific test data related to reactivity available for this product or its ingredients.
	HaloPlex HS ILM Indexing Plate	No specific test data related to reactivity available for this product or its ingredients.
	Enzyme Strip 1	No specific test data related to reactivity available for this product or its ingredients.
	Enzyme Strip 2	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability :	RE Buffer	The product is stable.
	BSA Solution	The product is stable.
	Enrichment Control DNA	The product is stable.
	Hybridization Solution	The product is stable.
	HS Hybridization Stop Solution	The product is stable.
	10 mM rATP	The product is stable.
	HS Ligation Solution	The product is stable.
	HS DNA Ligase	The product is stable.
	HS Capture Solution	The product is stable.
	HS Wash 1 Solution	The product is stable.
	HS Wash 2 Solution	The product is stable.
	Primer 1	The product is stable.
	Primer 2	The product is stable.
	HS Elution Buffer	The product is stable.
	Herculase II Fusion DNA Polymerase	The product is stable.
	Herculase II Reaction Buffer	The product is stable.
	100 mM dNTP Mix	The product is stable.
	HaloPlex HS ILM Indexing Plate	The product is stable.
	Enzyme Strip 1	The product is stable.
	Enzyme Strip 2	The product is stable.
Possibility of hazardous reactions :	RE 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.
	Enrichment Control DNA	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.

Section 10. Stability and reactivity

HS Hybridization Stop Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
10 mM rATP	Under normal conditions of storage and use, hazardous reactions will not occur.
HS Ligation Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
HS DNA Ligase	Under normal conditions of storage and use, hazardous reactions will not occur.
HS Capture Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
HS Wash 1 Solution	Under normal conditions of storage and use, hazardous reactions will not occur.
HS Wash 2 Solution	Under normal conditions of storage and use, 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.
HS Elution Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
Herculase II Fusion DNA Polymerase	Under normal conditions of storage and use, hazardous reactions will not occur.
Herculase II Reaction Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
100 mM dNTP Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
HaloPlex HS ILM Indexing Plate	Under normal conditions of storage and use, hazardous reactions will not occur.
Enzyme Strip 1	Under normal conditions of storage and use, hazardous reactions will not occur.
Enzyme Strip 2	Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid :

RE Buffer	No specific data.
BSA Solution	No specific data.
Enrichment Control DNA	No specific data.
Hybridization Solution	No specific data.
HS Hybridization Stop Solution	No specific data.
10 mM rATP	No specific data.
HS Ligation Solution	No specific data.
HS DNA Ligase	No specific data.
HS Capture Solution	No specific data.
HS Wash 1 Solution	No specific data.
HS Wash 2 Solution	No specific data.
Primer 1	No specific data.
Primer 2	No specific data.
HS Elution Buffer	No specific data.
Herculase II Fusion DNA Polymerase	No specific data.
Herculase II Reaction Buffer	No specific data.
100 mM dNTP Mix	No specific data.
HaloPlex HS ILM Indexing Plate	No specific data.
Enzyme Strip 1	No specific data.
Enzyme Strip 2	No specific data.

Section 10. Stability and reactivity

Incompatible materials :	RE Buffer	May react or be incompatible with oxidising materials.
	BSA Solution	May react or be incompatible with oxidising materials.
	Enrichment Control DNA	May react or be incompatible with oxidising materials.
	Hybridization Solution	May react or be incompatible with oxidising materials.
	HS Hybridization Stop Solution	May react or be incompatible with oxidising materials.
	10 mM rATP	May react or be incompatible with oxidising materials.
	HS Ligation Solution	May react or be incompatible with oxidising materials.
	HS DNA Ligase	May react or be incompatible with oxidising materials.
	HS Capture Solution	May react or be incompatible with oxidising materials.
	HS Wash 1 Solution	May react or be incompatible with oxidising materials.
	HS Wash 2 Solution	May react or be incompatible with oxidising materials.
	Primer 1	May react or be incompatible with oxidising materials.
	Primer 2	May react or be incompatible with oxidising materials.
	HS Elution Buffer	May react or be incompatible with oxidising materials.
	Herculase II Fusion DNA Polymerase	May react or be incompatible with oxidising materials.
	Herculase II Reaction Buffer	May react or be incompatible with oxidising materials.
	100 mM dNTP Mix	May react or be incompatible with oxidising materials.
	HaloPlex HS ILM Indexing Plate	May react or be incompatible with oxidising materials.
	Enzyme Strip 1	May react or be incompatible with oxidising materials.
	Enzyme Strip 2	May react or be incompatible with oxidising materials.

Hazardous decomposition products :	RE 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.
	Enrichment Control DNA	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.
	HS Hybridization Stop Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10 mM rATP	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	HS Ligation Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	HS DNA Ligase	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	HS Capture Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	HS Wash 1 Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	HS Wash 2 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.

Section 10. Stability and reactivity

HS Elution Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Herculase II Fusion DNA Polymerase	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Herculase II Reaction Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
100 mM dNTP Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
HaloPlex HS ILM Indexing Plate	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Enzyme Strip 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Enzyme Strip 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
BSA Solution				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Hybridization Solution				
Formamide	LC50 Inhalation Dusts and mists	Rat - Male	>21 mg/l	4 hours
	LD50 Dermal	Rabbit	17 g/kg	-
	LD50 Oral	Rat	4000 mg/kg	-
HS DNA Ligase				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Herculase II Fusion DNA Polymerase				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Enzyme Strip 1				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Enzyme Strip 2				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
BSA Solution					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Hybridization Solution					
Formamide	Eyes - Severe irritant	Rabbit	-	100 mg	-
HS Hybridization Stop Solution					
Polyethylene glycol	Eyes - Mild irritant	Rabbit	-	24 hours 500	-

Section 11. Toxicological information

				mg	
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
HS DNA Ligase					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Herculase II Fusion DNA Polymerase					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Enzyme Strip 1					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Enzyme Strip 2					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Hybridization Solution Formamide	Category 2	-	-

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on likely routes of exposure :

RE Buffer	Not available.
BSA Solution	Not available.
Enrichment Control DNA	Not available.
Hybridization Solution	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
HS Hybridization Stop Solution	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
10 mM rATP	Not available.
HS Ligation Solution	Not available.
HS DNA Ligase	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
HS Capture Solution	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
HS Wash 1 Solution	Not available.
HS Wash 2 Solution	Not available.
Primer 1	Not available.
Primer 2	Not available.
HS Elution Buffer	Not available.
Herculase II Fusion DNA Polymerase	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Herculase II Reaction Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
100 mM dNTP Mix	Not available.
HaloPlex HS ILM Indexing Plate	Not available.
Enzyme Strip 1	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Enzyme Strip 2	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact :

RE Buffer	No known significant effects or critical hazards.
BSA Solution	No known significant effects or critical hazards.
Enrichment Control DNA	No known significant effects or critical hazards.
Hybridization Solution	Causes serious eye irritation.
HS Hybridization Stop Solution	Causes eye irritation.
10 mM rATP	No known significant effects or critical hazards.
HS Ligation Solution	No known significant effects or critical hazards.
HS DNA Ligase	Causes eye irritation.
HS Capture Solution	No known significant effects or critical hazards.
HS Wash 1 Solution	No known significant effects or critical hazards.
HS Wash 2 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.
HS Elution Buffer	No known significant effects or critical hazards.
Herculase II Fusion DNA Polymerase	Causes eye irritation.
Herculase II Reaction Buffer	No known significant effects or critical hazards.
100 mM dNTP Mix	No known significant effects or critical hazards.
HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
Enzyme Strip 1	Causes eye irritation.
Enzyme Strip 2	Causes eye irritation.

Inhalation :

RE Buffer	No known significant effects or critical hazards.
BSA Solution	No known significant effects or critical hazards.
Enrichment Control DNA	No known significant effects or critical hazards.
Hybridization Solution	No known significant effects or critical hazards.
HS Hybridization Stop Solution	No known significant effects or critical hazards.
10 mM rATP	No known significant effects or critical hazards.
HS Ligation Solution	No known significant effects or critical hazards.
HS DNA Ligase	No known significant effects or critical hazards.
HS Capture Solution	No known significant effects or critical hazards.

Section 11. Toxicological information

		HS Wash 1 Solution	No known significant effects or critical hazards.
		HS Wash 2 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.
		HS Elution Buffer	No known significant effects or critical hazards.
		Herculase II Fusion DNA Polymerase	No known significant effects or critical hazards.
		Herculase II Reaction Buffer	No known significant effects or critical hazards.
		100 mM dNTP Mix	No known significant effects or critical hazards.
		HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
		Enzyme Strip 1	No known significant effects or critical hazards.
		Enzyme Strip 2	No known significant effects or critical hazards.
Skin contact	:	RE Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		Hybridization Solution	No known significant effects or critical hazards.
		HS Hybridization Stop Solution	No known significant effects or critical hazards.
		10 mM rATP	No known significant effects or critical hazards.
		HS Ligation Solution	No known significant effects or critical hazards.
		HS DNA Ligase	No known significant effects or critical hazards.
		HS Capture Solution	No known significant effects or critical hazards.
		HS Wash 1 Solution	No known significant effects or critical hazards.
		HS Wash 2 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.
		HS Elution Buffer	No known significant effects or critical hazards.
		Herculase II Fusion DNA Polymerase	No known significant effects or critical hazards.
		Herculase II Reaction Buffer	No known significant effects or critical hazards.
		100 mM dNTP Mix	No known significant effects or critical hazards.
		HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
		Enzyme Strip 1	No known significant effects or critical hazards.
		Enzyme Strip 2	No known significant effects or critical hazards.
Ingestion	:	RE Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		Hybridization Solution	No known significant effects or critical hazards.
		HS Hybridization Stop Solution	No known significant effects or critical hazards.
		10 mM rATP	No known significant effects or critical hazards.
		HS Ligation Solution	No known significant effects or critical hazards.
		HS DNA Ligase	No known significant effects or critical hazards.
		HS Capture Solution	No known significant effects or critical hazards.
		HS Wash 1 Solution	No known significant effects or critical hazards.
		HS Wash 2 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.
		HS Elution Buffer	No known significant effects or critical hazards.
		Herculase II Fusion DNA Polymerase	No known significant effects or critical hazards.
		Herculase II Reaction Buffer	No known significant effects or critical hazards.
		100 mM dNTP Mix	No known significant effects or critical hazards.
		HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
		Enzyme Strip 1	No known significant effects or critical hazards.
		Enzyme Strip 2	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact	:	RE Buffer	No specific data.
		BSA Solution	No specific data.
		Enrichment Control DNA	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: pain or irritation watering redness
		HS Hybridization Stop Solution	Adverse symptoms may include the following: irritation watering redness
		10 mM rATP	No specific data.
		HS Ligation Solution	No specific data.
		HS DNA Ligase	Adverse symptoms may include the following: irritation watering redness
		HS Capture Solution	No specific data.
		HS Wash 1 Solution	No specific data.
		HS Wash 2 Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HS Elution Buffer	No specific data.
		Herculase II Fusion DNA Polymerase	Adverse symptoms may include the following: irritation watering redness
		Herculase II Reaction Buffer	No specific data.
		100 mM dNTP Mix	No specific data.
		HaloPlex HS ILM Indexing Plate	No specific data.
		Enzyme Strip 1	Adverse symptoms may include the following: irritation watering redness
		Enzyme Strip 2	Adverse symptoms may include the following: irritation watering redness
Inhalation	:	RE Buffer	No specific data.
		BSA Solution	No specific data.
		Enrichment Control DNA	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		HS Hybridization Stop Solution	No specific data.
		10 mM rATP	No specific data.
		HS Ligation Solution	No specific data.
		HS DNA Ligase	No specific data.
		HS Capture Solution	No specific data.
		HS Wash 1 Solution	No specific data.
		HS Wash 2 Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HS Elution Buffer	No specific data.
		Herculase II Fusion DNA Polymerase	No specific data.
		Herculase II Reaction Buffer	No specific data.
		100 mM dNTP Mix	No specific data.
		HaloPlex HS ILM Indexing	No specific data.

Section 11. Toxicological information

		Plate	
		Enzyme Strip 1	No specific data.
		Enzyme Strip 2	No specific data.
Skin contact	:	RE Buffer	No specific data.
		BSA Solution	No specific data.
		Enrichment Control DNA	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		HS Hybridization Stop Solution	No specific data.
		10 mM rATP	No specific data.
		HS Ligation Solution	No specific data.
		HS DNA Ligase	No specific data.
		HS Capture Solution	No specific data.
		HS Wash 1 Solution	No specific data.
		HS Wash 2 Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HS Elution Buffer	No specific data.
		Herculase II Fusion DNA Polymerase	No specific data.
		Herculase II Reaction Buffer	No specific data.
		100 mM dNTP Mix	No specific data.
		HaloPlex HS ILM Indexing Plate	No specific data.
		Enzyme Strip 1	No specific data.
		Enzyme Strip 2	No specific data.
Ingestion	:	RE Buffer	No specific data.
		BSA Solution	No specific data.
		Enrichment Control DNA	No specific data.
		Hybridization Solution	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
		HS Hybridization Stop Solution	No specific data.
		10 mM rATP	No specific data.
		HS Ligation Solution	No specific data.
		HS DNA Ligase	No specific data.
		HS Capture Solution	No specific data.
		HS Wash 1 Solution	No specific data.
		HS Wash 2 Solution	No specific data.
		Primer 1	No specific data.
		Primer 2	No specific data.
		HS Elution Buffer	No specific data.
		Herculase II Fusion DNA Polymerase	No specific data.
		Herculase II Reaction Buffer	No specific data.
		100 mM dNTP Mix	No specific data.
		HaloPlex HS ILM Indexing Plate	No specific data.
		Enzyme Strip 1	No specific data.
		Enzyme Strip 2	No specific data.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Section 11. Toxicological information

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General :	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	No known significant effects or critical hazards.
	Enrichment Control DNA	No known significant effects or critical hazards.
	Hybridization Solution	May cause damage to organs through prolonged or repeated exposure.
	HS Hybridization Stop Solution	No known significant effects or critical hazards.
	10 mM rATP	No known significant effects or critical hazards.
	HS Ligation Solution	No known significant effects or critical hazards.
	HS DNA Ligase	No known significant effects or critical hazards.
	HS Capture Solution	No known significant effects or critical hazards.
	HS Wash 1 Solution	No known significant effects or critical hazards.
	HS Wash 2 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.
	HS Elution Buffer	No known significant effects or critical hazards.
	Herculase II Fusion DNA Polymerase	No known significant effects or critical hazards.
	Herculase II Reaction Buffer	No known significant effects or critical hazards.
	100 mM dNTP Mix	No known significant effects or critical hazards.
	HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
	Enzyme Strip 1	No known significant effects or critical hazards.
	Enzyme Strip 2	No known significant effects or critical hazards.
Carcinogenicity :	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	No known significant effects or critical hazards.
	Enrichment Control DNA	No known significant effects or critical hazards.
	Hybridization Solution	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
	HS Hybridization Stop Solution	No known significant effects or critical hazards.
	10 mM rATP	No known significant effects or critical hazards.
	HS Ligation Solution	No known significant effects or critical hazards.
	HS DNA Ligase	No known significant effects or critical hazards.
	HS Capture Solution	No known significant effects or critical hazards.
	HS Wash 1 Solution	No known significant effects or critical hazards.
	HS Wash 2 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.
	HS Elution Buffer	No known significant effects or critical hazards.
	Herculase II Fusion DNA Polymerase	No known significant effects or critical hazards.
	Herculase II Reaction Buffer	No known significant effects or critical hazards.
	100 mM dNTP Mix	No known significant effects or critical hazards.
	HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
	Enzyme Strip 1	No known significant effects or critical hazards.
	Enzyme Strip 2	No known significant effects or critical hazards.
Mutagenicity :	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	No known significant effects or critical hazards.
	Enrichment Control DNA	No known significant effects or critical hazards.
	Hybridization Solution	No known significant effects or critical hazards.
	HS Hybridization Stop Solution	No known significant effects or critical hazards.
	10 mM rATP	No known significant effects or critical hazards.
	HS Ligation Solution	No known significant effects or critical hazards.
	HS DNA Ligase	No known significant effects or critical hazards.

Section 11. Toxicological information

		HS Capture Solution	No known significant effects or critical hazards.
		HS Wash 1 Solution	No known significant effects or critical hazards.
		HS Wash 2 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.
		HS Elution Buffer	No known significant effects or critical hazards.
		Herculase II Fusion DNA Polymerase	No known significant effects or critical hazards.
		Herculase II Reaction Buffer	No known significant effects or critical hazards.
		100 mM dNTP Mix	No known significant effects or critical hazards.
		HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
		Enzyme Strip 1	No known significant effects or critical hazards.
		Enzyme Strip 2	No known significant effects or critical hazards.
Reproductive toxicity	:	RE Buffer	No known significant effects or critical hazards.
		BSA Solution	No known significant effects or critical hazards.
		Enrichment Control DNA	No known significant effects or critical hazards.
		Hybridization Solution	May damage fertility or the unborn child.
		HS Hybridization Stop Solution	No known significant effects or critical hazards.
		10 mM rATP	No known significant effects or critical hazards.
		HS Ligation Solution	No known significant effects or critical hazards.
		HS DNA Ligase	No known significant effects or critical hazards.
		HS Capture Solution	No known significant effects or critical hazards.
		HS Wash 1 Solution	No known significant effects or critical hazards.
		HS Wash 2 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.
		HS Elution Buffer	No known significant effects or critical hazards.
		Herculase II Fusion DNA Polymerase	No known significant effects or critical hazards.
		Herculase II Reaction Buffer	No known significant effects or critical hazards.
		100 mM dNTP Mix	No known significant effects or critical hazards.
		HaloPlex HS ILM Indexing Plate	No known significant effects or critical hazards.
		Enzyme Strip 1	No known significant effects or critical hazards.
		Enzyme Strip 2	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
BSA Solution					
Glycerol	12600	N/A	N/A	N/A	N/A
Hybridization Solution					
Formamide	4000	17000	N/A	N/A	N/A
HS Hybridization Stop Solution					
Polyethylene glycol	28000	N/A	N/A	N/A	N/A
HS DNA Ligase					
Glycerol	12600	N/A	N/A	N/A	N/A
HS Capture Solution					
HS Capture Solution	N/A	N/A	N/A	117.0	N/A
Herculase II Fusion DNA Polymerase					
Glycerol	12600	N/A	N/A	N/A	N/A

Section 11. Toxicological information

Enzyme Strip 1 Glycerol	12600	N/A	N/A	N/A	N/A
Enzyme Strip 2 Glycerol	12600	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
BSA Solution Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
HS Hybridization Stop Solution Polyethylene glycol	Acute LC50 >1000000 µg/l Fresh water	Fish - Salmo salar - Parr	96 hours
HS DNA Ligase Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Herculase II Fusion DNA Polymerase Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Enzyme Strip 1 Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Enzyme Strip 2 Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
BSA Solution Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Hybridization Solution Formamide	OECD 301A Ready Biodegradability - DOC Die-Away Test	99 % - Readily - 28 days	-	-
HS Hybridization Stop Solution Polyethylene glycol	OECD 301D Ready Biodegradability - Closed Bottle Test	74.85 % - Readily - 28 days	4 mg/l	-
HS DNA Ligase Glycerol	301D Ready Biodegradability - Closed Bottle	93 % - 30 days	-	-

Section 12. Ecological information

	Test			
Herculase II Fusion DNA Polymerase				
Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Enzyme Strip 1				
Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
Enzyme Strip 2				
Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hybridization Solution			
Formamide	-	-	Readily
HS Hybridization Stop Solution			
Polyethylene glycol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
BSA Solution			
Glycerol	-1.76	-	low
Hybridization Solution			
Formamide	-0.82	-	low
HS Hybridization Stop Solution			
Polyethylene glycol	-	3.2	low
HS DNA Ligase			
Glycerol	-1.76	-	low
Herculase II Fusion DNA Polymerase			
Glycerol	-1.76	-	low
Enzyme Strip 1			
Glycerol	-1.76	-	low
Enzyme Strip 2			
Glycerol	-1.76	-	low

Mobility in soil

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

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

Section 13. Disposal considerations

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

Section 14. Transport information

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

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

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

Canada : Not determined.

China : Not determined.

Eurasian Economic Union : **Russian Federation inventory**: Not determined.

Japan : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : All components are listed or exempted.

Section 15. Regulatory information

Thailand : Not determined.

Turkey : Not determined.

United States : Not determined.

Viet Nam : Not determined.

Section 16. Any other relevant information

History

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

Procedure used to derive the classification

Classification	Justification
Hybridization Solution	
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
REPRODUCTIVE TOXICITY - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2	Calculation method
HS Hybridization Stop Solution	
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
HS DNA Ligase	
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
Herculase II Fusion DNA Polymerase	
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
Enzyme Strip 1	
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
Enzyme Strip 2	
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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