

# SAFETY DATA SHEET



## ClearSeq HS Target Enrichment Kits - ION - 96 reactions

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

#### 1.1 Product identifier

<b>Product name</b>	: ClearSeq HS Target Enrichment Kits - ION - 96 reactions
<b>Part No. (Kit)</b>	: G9934B, G9944B, 5190-9190, 5190-9192, 5190-9194, 5190-9196, G9964B
<b>Part No.</b>	: ClearSeq Cancer Probe 5190-7889 / 5190-7983 / 5190-9189 / 5190-9191 / HS ION 5190-9193 / 5190-9195 / 5190-9404 RE Buffer 5190-7972 BSA Solution 5190-7973 Enzyme Strip 1 5190-7974 Enzyme Strip 2 5190-7975 Enrichment Control DNA 5190-7976 Hybridization Solution 5190-7977 HS Hybridization Stop Solution 5190-7978 10 mM rATP 5190-7979 HS Ligation Solution 5190-7980 HS DNA Ligase 5190-7981 HS Capture Solution 5190-7982 HS Wash 1 Solution 5190-7983 HS Wash 2 Solution 5190-7986 Primer 1 ION 5190-7813 Primer 2 ION 5190-7814 HS Elution Buffer 5190-7989 Herculase II Fusion DNA Polymerase 5190-7990 Herculase II Reaction Buffer 5190-7991 100 mM dNTP Mix 5190-7992 HaloPlex HS ION Indexing Plate 5190-8834

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

##### Identified uses

Analytical reagent.	
ClearSeq Cancer Probe HS ION	0.714 ml (96 reactions)
RE Buffer	3.3 ml (96 reactions)
BSA Solution	0.07 ml (96 reactions)
Enzyme Strip 1	0.4 ml (96 reactions)
Enzyme Strip 2	0.4 ml (96 reactions)
Enrichment Control DNA	0.615 ml (96 reactions)
Hybridization Solution	4.9 ml (96 reactions)
HS Hybridization Stop Solution	4 ml (96 reactions)
10 mM rATP	0.04 ml (96 reactions)
HS Ligation Solution	1.5 ml (96 reactions)
HS DNA Ligase	0.36 ml (96 reactions)
HS Capture Solution	5.4 ml (96 reactions)
HS Wash 1 Solution	13.4 ml (96 reactions)
HS Wash 2 Solution	11 ml (96 reactions)
Primer 1 ION	0.575 ml (96 reactions)
Primer 2 ION	1.15 ml (96 reactions)
HS Elution Buffer	30 ml (96 reactions)
Herculase II Fusion DNA Polymerase	0.575 ml (96 reactions)
Herculase II Reaction Buffer	4.3 ml (96 reactions)
100 mM dNTP Mix	0.115 ml (96 reactions)
HaloPlex HS ION Indexing Plate	96 x 0.015 ml (96 reactions)

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

### 1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG  
Hewlett-Packard-Str. 8  
76337 Waldbronn  
Germany  
0800 603 1000

**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

### 1.4 Emergency telephone number

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

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** :  ClearSeq Cancer Probe Mixture  
HS ION  
RE Buffer Mixture  
BSA Solution Mixture  
Enzyme Strip 1 Mixture  
Enzyme Strip 2 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 ION Mixture  
Primer 2 ION Mixture  
HS Elution Buffer Mixture  
Herculase II Fusion DNA Polymerase Mixture  
Herculase II Reaction Buffer Mixture  
100 mM dNTP Mix Mixture  
HaloPlex HS ION Mixture  
Indexing Plate

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

#### Hybridization Solution

H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2  
H360D REPRODUCTIVE TOXICITY (Unborn child) - Category 1B

#### HS Capture Solution

H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

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<b>Ingredients of unknown toxicity</b>	: RE Buffer	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	BSA Solution	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	BSA Solution	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	BSA Solution	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	Enzyme Strip 1	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
	Enzyme Strip 2	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
	Enzyme Strip 2	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
	Hybridization Solution	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
	Hybridization Solution	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
	HS Hybridization Stop Solution	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
	HS Ligation Solution	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	HS Ligation Solution	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	HS DNA Ligase	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
	HS Capture Solution	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	HS Capture Solution	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
	Herculase II Fusion DNA Polymerase	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
	Herculase II Reaction Buffer	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	Herculase II Reaction Buffer	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	100 mM dNTP Mix	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	100 mM dNTP Mix	Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
	100 mM dNTP Mix	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	100 mM dNTP Mix	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
<b>Ingredients of unknown ecotoxicity</b>	: BSA Solution	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1%
	BSA Solution	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1%
	HS Capture Solution	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 9.4%
	HS Capture Solution	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 9.4%
	100 mM dNTP Mix	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5.4%
	100 mM dNTP Mix	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 5.4%

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

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

**2.2 Label elements**

<b>Hazard pictograms</b>	: Hybridization Solution	
	HS Capture Solution	



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**SECTION 2: Hazards identification**

<b>Prevention</b>	: <input checked="" type="checkbox"/>	ClearSeq Cancer Probe HS ION RE Buffer BSA Solution Enzyme Strip 1 Enzyme Strip 2 Enrichment Control DNA Hybridization Solution  HS Hybridization Stop Solution 10 mM rATP HS Ligation Solution HS DNA Ligase HS Capture Solution  HS Wash 1 Solution HS Wash 2 Solution Primer 1 ION Primer 2 ION HS Elution Buffer Herculase II Fusion DNA Polymerase Herculase II Reaction Buffer 100 mM dNTP Mix HaloPlex HS ION Indexing Plate	Not applicable.  Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P201 - Obtain special instructions before use. P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection. Not applicable.  Not applicable. Not applicable. Not applicable. P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.  Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
<b>Response</b>	: <input checked="" type="checkbox"/>	ClearSeq Cancer Probe HS ION RE Buffer BSA Solution Enzyme Strip 1 Enzyme Strip 2 Enrichment Control DNA Hybridization Solution  HS Hybridization Stop Solution 10 mM rATP HS Ligation Solution HS DNA Ligase HS Capture Solution  HS Wash 1 Solution HS Wash 2 Solution Primer 1 ION Primer 2 ION HS Elution Buffer Herculase II Fusion DNA Polymerase Herculase II Reaction Buffer 100 mM dNTP Mix HaloPlex HS ION Indexing Plate	Not applicable.  Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P308 + P313 - IF exposed or concerned: Get medical attention. P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes. Not applicable.  Not applicable. Not applicable. Not applicable. Not applicable. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

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<b>Storage</b>	: <input checked="" type="checkbox"/>	ClearSeq Cancer Probe HS ION RE Buffer BSA Solution Enzyme Strip 1 Enzyme Strip 2 Enrichment Control DNA Hybridization Solution HS Hybridization Stop Solution 10 mM rATP HS Ligation Solution HS DNA Ligase HS Capture Solution HS Wash 1 Solution HS Wash 2 Solution Primer 1 ION Primer 2 ION HS Elution Buffer Herculase II Fusion DNA Polymerase Herculase II Reaction Buffer 100 mM dNTP Mix HaloPlex HS ION Indexing Plate	Not applicable.  Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P405 - Store locked up. Not applicable.  Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
<b>Disposal</b>	: <input checked="" type="checkbox"/>	ClearSeq Cancer Probe HS ION RE Buffer BSA Solution Enzyme Strip 1 Enzyme Strip 2 Enrichment Control DNA Hybridization Solution  HS Hybridization Stop Solution 10 mM rATP HS Ligation Solution HS DNA Ligase HS Capture Solution HS Wash 1 Solution HS Wash 2 Solution Primer 1 ION Primer 2 ION HS Elution Buffer Herculase II Fusion DNA Polymerase Herculase II Reaction Buffer 100 mM dNTP Mix HaloPlex HS ION Indexing Plate	Not applicable.  Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. Not applicable.  Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
<b>Hazardous ingredients</b>	: <input checked="" type="checkbox"/>	Hybridization Solution HS Ligation Solution HS DNA Ligase HS Capture Solution Herculase II Reaction Buffer	- formamide Not applicable. Not applicable. Not applicable. Not applicable.

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**SECTION 2: Hazards identification**

<b>Supplemental label elements</b>	:	<input checked="" type="checkbox"/> ClearSeq Cancer Probe	Not applicable.
		HS ION	
		RE Buffer	Not applicable.
		BSA Solution	Not applicable.
		Enzyme Strip 1	Not applicable.
		Enzyme Strip 2	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	Safety data sheet available on request.
		HS DNA Ligase	Not applicable.
		HS Capture Solution	Not applicable.
		HS Wash 1 Solution	Not applicable.
		HS Wash 2 Solution	Not applicable.
		Primer 1 ION	Not applicable.
		Primer 2 ION	Not applicable.
		HS Elution Buffer	Not applicable.
		Herculase II Fusion DNA Polymerase	Not applicable.
		Herculase II Reaction Buffer	Safety data sheet available on request.
	100 mM dNTP Mix	Not applicable.	
	HaloPlex HS ION	Not applicable.	
	Indexing Plate		

<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	:	<input checked="" type="checkbox"/> ClearSeq Cancer Probe	Not applicable.
		HS ION	
		RE Buffer	Not applicable.
		BSA Solution	Not applicable.
		Enzyme Strip 1	Not applicable.
		Enzyme Strip 2	Not applicable.
		Enrichment Control DNA	Not applicable.
		Hybridization Solution	Restricted to professional users.
		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 ION	Not applicable.
		Primer 2 ION	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 ION	Not applicable.	
	Indexing Plate		

**Special packaging requirements**

<b>Tactile warning of danger</b>	:	<input checked="" type="checkbox"/> ClearSeq Cancer Probe	Not applicable.
		HS ION	
		RE Buffer	Not applicable.
		BSA Solution	Not applicable.
		Enzyme Strip 1	Not applicable.
		Enzyme Strip 2	Not applicable.
	Enrichment Control DNA	Not applicable.	

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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 ION	Not applicable.
Primer 2 ION	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 ION Indexing Plate	Not applicable.

**2.3 Other hazards**

<b>Other hazards which do not result in classification</b>	:	<input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	None known.
		RE Buffer	None known.
		BSA Solution	None known.
		Enzyme Strip 1	None known.
		Enzyme Strip 2	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 ION	None known.
		Primer 2 ION	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 ION Indexing Plate	None known.	

**SECTION 3: Composition/information on ingredients**

<b>3.1 Substances</b>	:	<input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	Mixture
		RE Buffer	Mixture
		BSA Solution	Mixture
		Enzyme Strip 1	Mixture
		Enzyme Strip 2	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



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HS Capture Solution	Mixture
HS Wash 1 Solution	Mixture
HS Wash 2 Solution	Mixture
Primer 1 ION	Mixture
Primer 2 ION	Mixture
HS Elution Buffer	Mixture
Herculase II Fusion DNA Polymerase	Mixture
Herculase II Reaction Buffer	Mixture
100 mM dNTP Mix	Mixture
HaloPlex HS ION Indexing Plate	Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
<b>BSA Solution</b> Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≤10	Not classified.	[2]
<b>Enzyme Strip 1</b> Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[2]
<b>Enzyme Strip 2</b> Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[2]
<b>Hybridization Solution</b> Formamide	EC: 200-842-0 CAS: 75-12-7 Index: 616-052-00-8	≥25 - ≤50	Repr. 1B, H360D (Unborn child)	[1] [2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≥10 - ≤25	Eye Irrit. 2, H319	[1]
<b>HS Ligation Solution</b> Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤3	Eye Irrit. 2, H319	[1]
<b>HS DNA Ligase</b> Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[2]
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	CAS: 9036-19-5	≤0.3	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411	[1] [5]
<b>HS Capture Solution</b> Acetic acid, (ethylenedinitrilo)tetra-, disodium salt, dihydrate	EC: 205-358-3 CAS: 6381-92-6	<10	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤3	Eye Irrit. 2, H319	[1]
<b>Herculase II Fusion DNA Polymerase</b> Glycerol	REACH #: Annex V	≥50 - ≤75	Not classified.	[2]

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<p><b>Herculase II Reaction Buffer</b> Trometamol</p>	<p>EC: 200-289-5 CAS: 56-81-5</p> <p>EC: 201-064-4 CAS: 77-86-1</p>	<p>≤3</p>	<p>Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335</p> <p><b>See Section 16 for the full text of the H statements declared above.</b></p>	<p>[1]</p>
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy


**SECTION 4: First aid measures**

4.1 Description of first aid measures

<p><b>Eye contact</b></p>	<p>: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION</p> <p>RE Buffer</p> <p>BSA Solution</p> <p>Enzyme Strip 1</p> <p>Enzyme Strip 2</p> <p>Enrichment Control DNA</p> <p>Hybridization Solution</p> <p>HS Hybridization Stop Solution</p> <p>10 mM rATP</p> <p>HS Ligation Solution</p> <p>HS DNA Ligase</p> <p>HS Capture Solution</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

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 ION	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 ION	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. Get medical attention if irritation occurs.
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 ION 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.
<b>Inhalation</b>	
:  ClearSeq Cancer Probe HS ION	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
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.
Enzyme Strip 1	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Enzyme Strip 2	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
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. Get medical attention if

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10 mM rATP	symptoms occur. 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. Get medical attention if symptoms occur.
HS Capture 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. 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 ION	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Primer 2 ION	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 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. Get medical attention if symptoms occur.
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 ION Indexing Plate	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

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<b>Skin contact</b>	:	ClearSeq Cancer Probe HS ION	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		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.
		Enzyme Strip 1	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		Enzyme Strip 2	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 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.
		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.
		HS Capture 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.
		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 ION	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		Primer 2 ION	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.
		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

**SECTION 4: First aid measures**

**Ingestion**

HaloPlex HS ION Indexing Plate

:  ClearSeq Cancer Probe HS ION

RE Buffer

BSA Solution

Enzyme Strip 1

Enzyme Strip 2

Enrichment Control DNA

Hybridization Solution

HS Hybridization Stop Solution

10 mM rATP

contaminated clothing and shoes. Get medical attention if symptoms occur.

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

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

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

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If

## SECTION 4: First aid measures

	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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
HS DNA Ligase	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
HS Capture Solution	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention 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 Wash 1 Solution	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
HS Wash 2 Solution	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Primer 1 ION	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Primer 2 ION	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
HS Elution Buffer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Herculase II Fusion DNA Polymerase	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If

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**SECTION 4: First aid measures**

		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 Reaction Buffer	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	100 mM dNTP Mix	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	HaloPlex HS ION Indexing Plate	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	<input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION 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.
	Enzyme Strip 1	No action shall be taken involving any personal risk or without suitable training.
	Enzyme Strip 2	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.
	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.
	HS Capture 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.
	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 ION	No action shall be taken involving any personal risk or without suitable training.
	Primer 2 ION	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.



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**SECTION 4: First aid measures**

Herculase II Fusion DNA Polymerase	No action shall be taken involving any personal risk or without suitable training.
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 ION Indexing Plate	No action shall be taken involving any personal risk or without suitable training.

**4.2 Most important symptoms and effects, both acute and delayed**

Potential acute health effects

<b>Eye contact</b>	:	ClearSeq Cancer Probe HS ION	No known significant effects or critical hazards.
		RE Buffer	No known significant effects or critical hazards.
		BSA Solution	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.
		Enrichment Control DNA	No known significant effects or critical hazards.
		Hybridization Solution	Causes serious eye irritation.
		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	Causes serious eye irritation.
		HS Wash 1 Solution	No known significant effects or critical hazards.
		HS Wash 2 Solution	No known significant effects or critical hazards.
		Primer 1 ION	No known significant effects or critical hazards.
		Primer 2 ION	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 ION Indexing Plate	No known significant effects or critical hazards.
<b>Inhalation</b>	:	ClearSeq Cancer Probe HS ION	No known significant effects or critical hazards.
		RE Buffer	No known significant effects or critical hazards.
		BSA Solution	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.
		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 ION	No known significant effects or critical hazards.
		Primer 2 ION	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.

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**SECTION 4: First aid measures**

	HaloPlex HS ION Indexing Plate	No known significant effects or critical hazards.
<b>Skin contact</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	No known significant effects or critical hazards.
	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	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.
	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 ION	No known significant effects or critical hazards.
	Primer 2 ION	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 ION Indexing Plate	No known significant effects or critical hazards.
<b>Ingestion</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	No known significant effects or critical hazards.
	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	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.
	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 ION	No known significant effects or critical hazards.
	Primer 2 ION	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 ION Indexing Plate	No known significant effects or critical hazards.

Over-exposure signs/symptoms

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**SECTION 4: First aid measures**

**Eye contact**

: ClearSeq Cancer Probe HS ION RE Buffer BSA Solution Enzyme Strip 1 Enzyme Strip 2 Enrichment Control DNA Hybridization Solution	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. Adverse symptoms may include the following: pain or irritation watering redness
HS Hybridization Stop Solution 10 mM rATP HS Ligation Solution HS DNA Ligase HS Capture Solution	No specific data. No specific data. No specific data. Adverse symptoms may include the following: pain or irritation watering redness
HS Wash 1 Solution HS Wash 2 Solution Primer 1 ION Primer 2 ION HS Elution Buffer Herculase II Fusion DNA Polymerase Herculase II Reaction Buffer 100 mM dNTP Mix HaloPlex HS ION Indexing Plate	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

**Inhalation**

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

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**SECTION 4: First aid measures**

<b>Skin contact</b>	: <input checked="" type="checkbox"/>	ClearSeq Cancer Probe	No specific data.	
		HS ION		
		RE Buffer	No specific data.	
		BSA Solution	No specific data.	
		Enzyme Strip 1	No specific data.	
		Enzyme Strip 2	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 ION	No specific data.	
		Primer 2 ION	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 ION	No specific data.	
		Indexing Plate		
	<b>Ingestion</b>	: <input checked="" type="checkbox"/>	ClearSeq Cancer Probe	No specific data.
			HS ION	
			RE Buffer	No specific data.
		BSA Solution	No specific data.	
		Enzyme Strip 1	No specific data.	
		Enzyme Strip 2	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 ION	No specific data.	
		Primer 2 ION	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 ION	No specific data.	
		Indexing Plate		

**4.3 Indication of any immediate medical attention and special treatment needed**

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**SECTION 4: First aid measures**

<b>Notes to physician</b>	:  ClearSeq Cancer Probe HS ION RE Buffer  BSA Solution  Enzyme Strip 1  Enzyme Strip 2  Enrichment Control DNA  Hybridization Solution  HS Hybridization Stop Solution 10 mM rATP  HS Ligation Solution  HS DNA Ligase  HS Capture Solution  HS Wash 1 Solution  HS Wash 2 Solution  Primer 1 ION  Primer 2 ION  HS Elution Buffer  Herculase II Fusion DNA Polymerase Herculase II Reaction Buffer  100 mM dNTP Mix  HaloPlex HS ION Indexing Plate	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	:  ClearSeq Cancer Probe HS ION RE Buffer BSA Solution Enzyme Strip 1 Enzyme Strip 2 Enrichment Control DNA Hybridization Solution HS Hybridization Stop Solution 10 mM rATP HS Ligation Solution HS DNA Ligase HS Capture Solution HS Wash 1 Solution HS Wash 2 Solution	No specific treatment.  No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.

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**SECTION 4: First aid measures**

Primer 1 ION	No specific treatment.
Primer 2 ION	No specific treatment.
HS Elution Buffer	No specific treatment.
Herculase II Fusion DNA	No specific treatment.
Polymerase	
Herculase II Reaction Buffer	No specific treatment.
100 mM dNTP Mix	No specific treatment.
HaloPlex HS ION	No specific treatment.
Indexing Plate	

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

<b>Suitable extinguishing media</b>	:	<input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	Use an extinguishing agent suitable for the surrounding fire.
		RE Buffer	Use an extinguishing agent suitable for the surrounding fire.
		BSA Solution	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.
		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 ION	Use an extinguishing agent suitable for the surrounding fire.
		Primer 2 ION	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	Use an extinguishing agent suitable for the surrounding fire.
		Polymerase	
		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 ION	Use an extinguishing agent suitable for the surrounding fire.		
Indexing Plate			

<b>Unsuitable extinguishing media</b>	:	<input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	None known.
		RE Buffer	None known.
		BSA Solution	None known.
		Enzyme Strip 1	None known.
		Enzyme Strip 2	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 ION	None known.
		Primer 2 ION	None known.
		HS Elution Buffer	None known.
		Herculase II Fusion DNA	None known.
		Polymerase	
		Herculase II Reaction	None known.

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**SECTION 5: Firefighting measures**

Buffer	
100 mM dNTP Mix	None known.
HaloPlex HS ION	None known.
Indexing Plate	

**5.2 Special hazards arising from the substance or mixture**

**Hazards from the substance or mixture**

: <input checked="" type="checkbox"/> ClearSeq Cancer Probe	In a fire or if heated, a pressure increase will occur and the container may burst.
HS ION	In a fire or if heated, a pressure increase will occur and the container may burst.
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.
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.
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 ION	In a fire or if heated, a pressure increase will occur and the container may burst.
Primer 2 ION	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 ION	In a fire or if heated, a pressure increase will occur and the container may burst.
Indexing Plate	In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion products**

: <input checked="" type="checkbox"/> ClearSeq Cancer Probe	No specific data.
HS ION	
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
Enzyme Strip 1	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Enzyme Strip 2	Decomposition products may include the following materials:

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	carbon dioxide carbon monoxide
Enrichment Control DNA Hybridization Solution	No specific data. 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 HS Ligation Solution	No specific data. 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 ION	No specific data.
Primer 2 ION	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 ION Indexing Plate	No specific data.

### 5.3 Advice for firefighters

#### Special precautions for fire-fighters

: ClearSeq Cancer Probe HS ION	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.
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.
Enzyme Strip 1	Promptly isolate the scene by removing all persons from the



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Enzyme Strip 2	vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
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 ION	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 ION	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 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 ION 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.
Special protective equipment for fire-fighters	:  ClearSeq Cancer Probe HS ION Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for

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	<p>fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
BSA Solution	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
Enzyme Strip 1	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
Enzyme Strip 2	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
Enrichment Control DNA	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
Hybridization Solution	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
HS Hybridization Stop Solution	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
10 mM rATP	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
HS Ligation Solution	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
HS DNA Ligase	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</p>
HS Capture Solution	<p>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a</p>

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HS Wash 1 Solution	basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
Primer 1 ION	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
Primer 2 ION	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
HaloPlex HS ION 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.


## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	:	<input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	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.
		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.
		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. 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. 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 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. 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. 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.

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	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 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 ION	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 ION	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 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. 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 ION 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.
<b>For emergency responders</b>	
:  ClearSeq Cancer Probe HS ION	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".
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".
Enzyme Strip 1	If specialised clothing is required to deal with the spillage,

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	take note of any information in Section 8 on 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".
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 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 ION	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 ION	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-

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	100 mM dNTP Mix	emergency personnel". If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	HaloPlex HS ION 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".
<b>6.2 Environmental precautions</b>	: ClearSeq Cancer Probe HS ION	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).
	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).
	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).
	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).

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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 ION	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 2 ION	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 ION 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).

### 6.3 Methods and material for containment and cleaning up

<b>Methods for cleaning up</b> : ClearSeq Cancer Probe HS ION	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.
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.
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.
Enrichment Control DNA	Stop leak if without risk. Move containers from spill area.



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

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

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

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

<b>Protective measures</b>	<ul style="list-style-type: none"> <li>: ClearSeq Cancer Probe HS ION RE Buffer Put on appropriate personal protective equipment (see Section 8).</li> <li>Put on appropriate personal protective equipment (see Section 8).</li> <li>BSA Solution Put on appropriate personal protective equipment (see Section 8).</li> <li>Enzyme Strip 1 Put on appropriate personal protective equipment (see Section 8).</li> <li>Enzyme Strip 2 Put on appropriate personal protective equipment (see Section 8).</li> <li>Enrichment Control DNA Put on appropriate personal protective equipment (see Section 8).</li> <li>Hybridization Solution Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.</li> <li>HS Hybridization Stop Solution Put on appropriate personal protective equipment (see Section 8).</li> <li>10 mM rATP Put on appropriate personal protective equipment (see Section 8).</li> <li>HS Ligation Solution Put on appropriate personal protective equipment (see Section 8).</li> <li>HS DNA Ligase Put on appropriate personal protective equipment (see Section 8).</li> <li>HS Capture 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.</li> </ul>
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**SECTION 7: Handling and storage**

**Advice on general occupational hygiene**

		Empty containers retain product residue and can be hazardous. Do not reuse container.
	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 ION	Put on appropriate personal protective equipment (see Section 8).
	Primer 2 ION	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).
	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 ION Indexing Plate	Put on appropriate personal protective equipment (see Section 8).
	ClearSeq Cancer Probe HS ION	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.
	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.
	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.
	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.

## SECTION 7: Handling and storage


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.
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 ION	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 ION	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.

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

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

:  ClearSeq Cancer Probe HS ION	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.
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.
Enzyme Strip 1	Storage temperature: -20°C (-4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do

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Enzyme Strip 2	not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. Storage temperature: -20°C (-4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in 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 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

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

## SECTION 7: Handling and storage

	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 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 ION 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.

### Seveso Directive - Reporting thresholds (in tonnes)

#### 7.3 Specific end use(s)

<b>Recommendations</b>	:	ClearSeq Cancer Probe HS ION	Industrial applications, Professional applications.
		RE Buffer	Industrial applications, Professional applications.
		BSA Solution	Industrial applications, Professional applications.
		Enzyme Strip 1	Industrial applications, Professional applications.
		Enzyme Strip 2	Industrial applications, Professional applications.
		Enrichment Control DNA	Industrial applications, Professional applications.
		Hybridization Solution	Industrial applications, Professional applications.
		HS Hybridization Stop	Industrial applications, Professional applications.



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Solution	
10 mM rATP	Industrial applications, Professional applications.
HS Ligation Solution	Industrial applications, Professional applications.
HS DNA Ligase	Industrial applications, Professional applications.
HS Capture Solution	Industrial applications, Professional applications.
HS Wash 1 Solution	Industrial applications, Professional applications.
HS Wash 2 Solution	Industrial applications, Professional applications.
Primer 1 ION	Industrial applications, Professional applications.
Primer 2 ION	Industrial applications, Professional applications.
HS Elution Buffer	Industrial applications, Professional applications.
Herculase II Fusion DNA Polymerase	Industrial applications, Professional applications.
Herculase II Reaction Buffer	Industrial applications, Professional applications.
100 mM dNTP Mix	Industrial applications, Professional applications.
HaloPlex HS ION Indexing Plate	Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b> : ClearSeq Cancer Probe HS ION	Not applicable.
RE Buffer	Not applicable.
BSA Solution	Not applicable.
Enzyme Strip 1	Not applicable.
Enzyme Strip 2	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 ION	Not applicable.
Primer 2 ION	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 ION Indexing Plate	Not applicable.

**SECTION 8: Exposure controls/personal protection**

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
<b>BSA Solution</b> Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist
<b>Enzyme Strip 1</b> Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist
<b>Enzyme Strip 2</b> Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist

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## SECTION 8: Exposure controls/personal protection

### Hybridization Solution

Formamide

**EH40/2005 WELs (United Kingdom (UK), 12/2011).**

STEL: 56 mg/m<sup>3</sup> 15 minutes.

STEL: 30 ppm 15 minutes.

TWA: 37 mg/m<sup>3</sup> 8 hours.

TWA: 20 ppm 8 hours.

### HS DNA Ligase

Glycerol

**EH40/2005 WELs (United Kingdom (UK), 12/2011).**

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Mist

### Herculase II Fusion DNA Polymerase

Glycerol

**EH40/2005 WELs (United Kingdom (UK), 12/2011).**

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Mist

### Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### DNELs/DMELs

No DNELs/DMELs available.

### PNECs

No PNECs available

## 8.2 Exposure controls

### Appropriate engineering controls

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

### Individual protection measures

#### Hygiene measures

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

#### Eye/face protection

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

### Skin protection

#### Hand protection

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

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**SECTION 8: Exposure controls/personal protection**

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

Appearance

<b>Physical state</b>	:	ClearSeq Cancer Probe HS ION	Liquid.
		RE Buffer	Liquid.
		BSA Solution	Liquid.
		Enzyme Strip 1	Liquid.
		Enzyme Strip 2	Liquid.
		Enrichment Control	Liquid.
		DNA	
		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 ION	Liquid.
		Primer 2 ION	Liquid.
		HS Elution Buffer	Liquid.
		Herculase II Fusion DNA Polymerase	Liquid.
		Herculase II Reaction Buffer	Liquid.
		100 mM dNTP Mix	Liquid.
		HaloPlex HS ION	Liquid.
		Indexing Plate	
<b>Colour</b>	:	ClearSeq Cancer Probe HS ION	Not available.
		RE Buffer	Not available.
		BSA Solution	Not available.
		Enzyme Strip 1	Not available.
		Enzyme Strip 2	Not available.
		Enrichment Control	Not available.
		DNA	
		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.

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## SECTION 9: Physical and chemical properties

	HS Wash 1 Solution	Not available.
	HS Wash 2 Solution	Not available.
	Primer 1 ION	Not available.
	Primer 2 ION	Not available.
	HS Elution Buffer	Not available.
	Herculase II Fusion	Not available.
	DNA Polymerase	
	Herculase II Reaction Buffer	Not available.
	100 mM dNTP Mix	Not available.
	HaloPlex HS ION	Not available.
	Indexing Plate	
<b>Odour</b>	: ClearSeq Cancer	Not available.
	Probe HS ION	
	RE Buffer	Not available.
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	Not available.
	Enrichment Control	Not available.
	DNA	
	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 ION	Not available.
	Primer 2 ION	Not available.
	HS Elution Buffer	Not available.
	Herculase II Fusion	Not available.
	DNA Polymerase	
	Herculase II Reaction Buffer	Not available.
	100 mM dNTP Mix	Not available.
	HaloPlex HS ION	Not available.
	Indexing Plate	
<b>Odour threshold</b>	: ClearSeq Cancer	Not available.
	Probe HS ION	
	RE Buffer	Not available.
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	Not available.
	Enrichment Control	Not available.
	DNA	
	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 ION	Not available.
	Primer 2 ION	Not available.
	HS Elution Buffer	Not available.
	Herculase II Fusion	Not available.
	DNA Polymerase	
	Herculase II Reaction	Not available.

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	Buffer	
	100 mM dNTP Mix	Not available.
	HaloPlex HS ION	Not available.
	Indexing Plate	
<b>pH</b>	: ClearSeq Cancer	Not available.
	Probe HS ION	
	RE Buffer	7.9
	BSA Solution	7
	Enzyme Strip 1	7.4
	Enzyme Strip 2	Not available.
	Enrichment Control	Not available.
	DNA	
	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 ION	Not available.
	Primer 2 ION	Not available.
	HS Elution Buffer	8.5
	Herculase II Fusion	8.2
	DNA Polymerase	
	Herculase II Reaction Buffer	10
	100 mM dNTP Mix	7.5
	HaloPlex HS ION	Not available.
	Indexing Plate	
<b>Melting point/freezing point</b>	: ClearSeq Cancer	0°C
	Probe HS ION	
	RE Buffer	0°C
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	Not available.
	Enrichment Control	0°C
	DNA	
	Hybridization Solution	Not available.
	HS Hybridization Stop Solution	Not available.
	10 mM rATP	0°C
	HS Ligation Solution	0°C
	HS DNA Ligase	Not available.
	HS Capture Solution	Not available.
	HS Wash 1 Solution	0°C
	HS Wash 2 Solution	0°C
	Primer 1 ION	0°C
	Primer 2 ION	0°C
	HS Elution Buffer	0°C
	Herculase II Fusion	Not available.
	DNA Polymerase	
	Herculase II Reaction Buffer	Not available.
	100 mM dNTP Mix	Not available.
	HaloPlex HS ION	0°C
	Indexing Plate	

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**SECTION 9: Physical and chemical properties**

<b>Initial boiling point and boiling range</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	100°C
	RE Buffer	100°C
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	Not available.
	Enrichment Control	100°C
	DNA	
	Hybridization Solution	Not available.
	HS Hybridization Stop Solution	Not available.
	10 mM rATP	100°C
	HS Ligation Solution	100°C
	HS DNA Ligase	Not available.
	HS Capture Solution	Not available.
	HS Wash 1 Solution	100°C
	HS Wash 2 Solution	100°C
	Primer 1 ION	100°C
	Primer 2 ION	100°C
	HS Elution Buffer	100°C
	Herculase II Fusion	Not available.
	DNA Polymerase	
	Herculase II Reaction Buffer	Not available.
	100 mM dNTP Mix	Not available.
	HaloPlex HS ION	100°C
	Indexing Plate	
<b>Flash point</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	Not available.
	RE Buffer	Not available.
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	Not available.
	Enrichment Control	Not available.
	DNA	
	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 ION	Not available.
	Primer 2 ION	Not available.
	HS Elution Buffer	Not available.
	Herculase II Fusion	Not available.
	DNA Polymerase	
	Herculase II Reaction Buffer	Not available.
	100 mM dNTP Mix	Not available.
	HaloPlex HS ION	Not available.
	Indexing Plate	
<b>Evaporation rate</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	Not available.
	RE Buffer	Not available.
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	Not available.
	Enrichment Control	Not available.

ClearSeq HS Target Enrichment Kits - ION - 96 reactions

## SECTION 9: Physical and chemical properties

	DNA	
	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 ION	Not available.
	Primer 2 ION	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 ION Indexing Plate	Not available.
<b>Flammability (solid, gas)</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	Not applicable.
	RE Buffer	Not applicable.
	BSA Solution	Not applicable.
	Enzyme Strip 1	Not applicable.
	Enzyme Strip 2	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 ION	Not applicable.
	Primer 2 ION	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 ION Indexing Plate	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	Not available.
	RE Buffer	Not available.
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	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.

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## SECTION 9: Physical and chemical properties

HS Capture Solution	Not available.
HS Wash 1 Solution	Not available.
HS Wash 2 Solution	Not available.
Primer 1 ION	Not available.
Primer 2 ION	Not available.
HS Elution Buffer	Not available.
Herculase II Fusion	Not available.
DNA Polymerase	
Herculase II Reaction Buffer	Not available.
100 mM dNTP Mix	Not available.
HaloPlex HS ION Indexing Plate	Not available.

### Vapour pressure

: ClearSeq Cancer Probe HS ION	Not available.
RE Buffer	Not available.
BSA Solution	Not available.
Enzyme Strip 1	Not available.
Enzyme Strip 2	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 ION	Not available.
Primer 2 ION	Not available.
HS Elution Buffer	Not available.
Herculase II Fusion	Not available.
DNA Polymerase	
Herculase II Reaction Buffer	Not available.
100 mM dNTP Mix	Not available.
HaloPlex HS ION Indexing Plate	Not available.

### Vapour density

: ClearSeq Cancer Probe HS ION	Not available.
RE Buffer	Not available.
BSA Solution	Not available.
Enzyme Strip 1	Not available.
Enzyme Strip 2	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 ION	Not available.
Primer 2 ION	Not available.
HS Elution Buffer	Not available.
Herculase II Fusion	Not available.



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**SECTION 9: Physical and chemical properties**

	DNA Polymerase	
	Herculase II Reaction Buffer	Not available.
	100 mM dNTP Mix	Not available.
	HaloPlex HS ION Indexing Plate	Not available.
<b>Relative density</b>	: ClearSeq Cancer Probe HS ION RE Buffer	Not available.
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	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 ION	Not available.
	Primer 2 ION	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 ION Indexing Plate	Not available.
<b>Solubility(ies)</b>	: ClearSeq Cancer Probe HS ION RE Buffer	Easily soluble in the following materials: cold water and hot water.
	BSA Solution	Easily soluble in the following materials: cold water and hot water.
	Enzyme Strip 1	Soluble in the following materials: cold water and hot water.
	Enzyme Strip 2	Soluble in the following materials: cold water and hot water.
	Enrichment Control DNA	Easily soluble in the following materials: cold water and hot water.
	Hybridization Solution	Soluble in the following materials: cold water and hot water.
	HS Hybridization Stop Solution	Soluble in the following materials: cold water and hot water.
	10 mM rATP	Easily soluble in the following materials: cold water and hot water.
	HS Ligation Solution	Easily soluble in the following materials: cold water and hot water.
	HS DNA Ligase	Soluble in the following materials: cold water and hot water.
	HS Capture Solution	Easily soluble in the following materials: cold water and hot water.
	HS Wash 1 Solution	Easily soluble in the following materials: cold water and hot water.
	HS Wash 2 Solution	Easily soluble in the following materials: cold water and hot water.

ClearSeq HS Target Enrichment Kits - ION - 96 reactions

**SECTION 9: Physical and chemical properties**

	Primer 1 ION	Easily soluble in the following materials: cold water and hot water.
	Primer 2 ION	Easily soluble in the following materials: cold water and hot water.
	HS Elution Buffer	Easily soluble in the following materials: cold water and hot water.
	Herculase II Fusion DNA Polymerase	Soluble in the following materials: cold water and hot water.
	Herculase II Reaction Buffer	Easily soluble in the following materials: cold water and hot water.
	100 mM dNTP Mix	Easily soluble in the following materials: cold water and hot water.
	HaloPlex HS ION Indexing Plate	Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: ClearSeq Cancer Probe HS ION	Not available.
	RE Buffer	Not available.
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	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 ION	Not available.
	Primer 2 ION	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 ION Indexing Plate	Not available.	
<b>Auto-ignition temperature</b>	: ClearSeq Cancer Probe HS ION	Not available.
	RE Buffer	Not available.
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	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 ION	Not available.
	Primer 2 ION	Not available.
	HS Elution Buffer	Not available.
	Herculase II Fusion	Not available.

ClearSeq HS Target Enrichment Kits - ION - 96 reactions

## SECTION 9: Physical and chemical properties

	DNA Polymerase	
	Herculase II Reaction Buffer	Not available.
	100 mM dNTP Mix	Not available.
	HaloPlex HS ION Indexing Plate	Not available.
<b>Decomposition temperature</b>	: ClearSeq Cancer Probe HS ION	Not available.
	RE Buffer	Not available.
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	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 ION	Not available.
	Primer 2 ION	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 ION Indexing Plate	Not available.
<b>Viscosity</b>	: ClearSeq Cancer Probe HS ION	Not available.
	RE Buffer	Not available.
	BSA Solution	Not available.
	Enzyme Strip 1	Not available.
	Enzyme Strip 2	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 ION	Not available.
	Primer 2 ION	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 ION Indexing Plate	Not available.

ClearSeq HS Target Enrichment Kits - ION - 96 reactions


**SECTION 9: Physical and chemical properties**


<b>Explosive properties</b>	:	ClearSeq Cancer Probe HS ION	Not available.	
		RE Buffer	Not available.	
		BSA Solution	Not available.	
		Enzyme Strip 1	Not available.	
		Enzyme Strip 2	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 ION	Not available.	
		Primer 2 ION	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 ION Indexing Plate	Not available.	
	<b>Oxidising properties</b>	:	ClearSeq Cancer Probe HS ION	Not available.
			RE Buffer	Not available.
		BSA Solution	Not available.	
		Enzyme Strip 1	Not available.	
		Enzyme Strip 2	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 ION	Not available.	
		Primer 2 ION	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 ION Indexing Plate	Not available.	

**9.2 Other information**

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	:  ClearSeq Cancer Probe	No specific test data related to reactivity available for this product or its ingredients.
	HS ION	No specific test data related to reactivity available for this product or its ingredients.
	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.
	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.
	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.
	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 ION	No specific test data related to reactivity available for this product or its ingredients.
	Primer 2 ION	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 ION Indexing Plate	No specific test data related to reactivity available for this product or its ingredients.

<b>10.2 Chemical stability</b>	:  ClearSeq Cancer Probe	The product is stable.
	HS ION	The product is stable.
	RE Buffer	The product is stable.
	BSA Solution	The product is stable.
	Enzyme Strip 1	The product is stable.
	Enzyme Strip 2	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 ION	The product is stable.
	Primer 2 ION	The product is stable.

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**SECTION 10: Stability and reactivity**

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 ION Indexing Plate	The product is stable.

**10.3 Possibility of hazardous reactions**

ClearSeq Cancer Probe HS ION 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.
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.
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.
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 ION	Under normal conditions of storage and use, hazardous reactions will not occur.
Primer 2 ION	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 ION Indexing Plate	Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid**

ClearSeq Cancer Probe HS ION RE Buffer	No specific data.
BSA Solution	No specific data.
Enzyme Strip 1	No specific data.
Enzyme Strip 2	No specific data.
Enrichment Control DNA	No specific data.
Hybridization Solution	No specific data.
HS Hybridization Stop	No specific data.

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**SECTION 10: Stability and reactivity**

Solution	
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 ION	No specific data.
Primer 2 ION	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 ION	No specific data.
Indexing Plate	

**10.5 Incompatible materials**

☑ ClearSeq Cancer Probe HS ION	May react or be incompatible with oxidising materials.
RE Buffer	May react or be incompatible with oxidising materials.
BSA Solution	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.
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 ION	May react or be incompatible with oxidising materials.
Primer 2 ION	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 ION	May react or be incompatible with oxidising materials.
Indexing Plate	

**10.6 Hazardous decomposition products**

☑ ClearSeq Cancer Probe HS ION	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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.
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.
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.

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**SECTION 10: Stability and reactivity**

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 ION	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Primer 2 ION	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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 ION Indexing Plate	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information**

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>Hybridization Solution</b> Formamide	LC50 Inhalation Dusts and mists	Rat	>21 mg/l	4 hours
	LD50 Dermal	Rabbit	17 g/kg	-
	LD50 Oral	Rat	4000 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
<b>HS Ligation Solution</b> Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
<b>HS DNA Ligase</b> Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3, 3-tetramethylbutyl)phenyl]-. omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-
<b>HS Capture Solution</b> Acetic acid, (ethylenedinitrilo) tetra-, disodium salt, dihydrate	LD50 Oral	Rat	2214.37 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
<b>Herculase II Reaction Buffer</b> Trometamol	LD50 Dermal LD50 Oral	Rat Rat	>5000 mg/kg 5000 mg/kg	- -

Acute toxicity estimates



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## SECTION 11: Toxicological information

Route	ATE value
<b>HS Capture Solution</b> Oral Dermal Inhalation (vapours)	5319.1 mg/kg 11702.1 mg/kg 117 mg/l

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>Hybridization Solution</b> Formamide	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant Skin - Mild irritant	Rabbit Rabbit	- -	10 milligrams 24 hours 500 milligrams	- -
<b>HS Ligation Solution</b> Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant Skin - Mild irritant	Rabbit Rabbit	- -	10 milligrams 24 hours 500 milligrams	- -
	Eyes - Severe irritant	Rabbit	-	1%	-
<b>HS Capture Solution</b> Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant Skin - Mild irritant	Rabbit Rabbit	- -	10 milligrams 24 hours 500 milligrams	- -
	Skin - Moderate irritant Skin - Severe irritant	Rabbit Rabbit	- -	25 Percent 500 milligrams	- -

### Sensitiser

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
<b>HS Capture Solution</b> Acetic acid, (ethylenedinitrilo)tetra-, disodium salt, dihydrate	Category 3	Not applicable.	Respiratory tract irritation
<b>Herculase II Reaction Buffer</b> Trometamol	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Not available.

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**SECTION 11: Toxicological information**

Aspiration hazard

Not available.

**Information on likely routes of exposure**

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

Potential acute health effects

**Inhalation**

: ClearSeq Cancer Probe	No known significant effects or critical hazards.
HS ION	
RE Buffer	No known significant effects or critical hazards.
BSA Solution	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.
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 ION	No known significant effects or critical hazards.
Primer 2 ION	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 ION	No known significant effects or critical hazards.
Indexing Plate	

ClearSeq HS Target Enrichment Kits - ION - 96 reactions

**SECTION 11: Toxicological information**

<b>Ingestion</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION RE Buffer BSA Solution Enzyme Strip 1 Enzyme Strip 2 Enrichment Control DNA Hybridization Solution HS Hybridization Stop Solution 10 mM rATP HS Ligation Solution HS DNA Ligase HS Capture Solution HS Wash 1 Solution HS Wash 2 Solution Primer 1 ION Primer 2 ION HS Elution Buffer Herculase II Fusion DNA Polymerase Herculase II Reaction Buffer 100 mM dNTP Mix HaloPlex HS ION Indexing Plate	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION RE Buffer BSA Solution Enzyme Strip 1 Enzyme Strip 2 Enrichment Control DNA Hybridization Solution HS Hybridization Stop Solution 10 mM rATP HS Ligation Solution HS DNA Ligase HS Capture Solution HS Wash 1 Solution HS Wash 2 Solution Primer 1 ION Primer 2 ION HS Elution Buffer Herculase II Fusion DNA Polymerase Herculase II Reaction Buffer 100 mM dNTP Mix HaloPlex HS ION Indexing Plate	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Eye contact</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION RE Buffer BSA Solution Enzyme Strip 1 Enzyme Strip 2 Enrichment Control DNA Hybridization Solution HS Hybridization Stop	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes serious eye irritation. No known significant effects or critical hazards.

ClearSeq HS Target Enrichment Kits - ION - 96 reactions

**SECTION 11: Toxicological information**

Solution	
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	Causes serious eye irritation.
HS Wash 1 Solution	No known significant effects or critical hazards.
HS Wash 2 Solution	No known significant effects or critical hazards.
Primer 1 ION	No known significant effects or critical hazards.
Primer 2 ION	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 ION	No known significant effects or critical hazards.
Indexing Plate	

Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation</b>	:	ClearSeq Cancer Probe	No specific data.
		HS ION	
		RE Buffer	No specific data.
		BSA Solution	No specific data.
		Enzyme Strip 1	No specific data.
		Enzyme Strip 2	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 ION	No specific data.
		Primer 2 ION	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 ION	No specific data.	
	Indexing Plate		
<b>Ingestion</b>	:	ClearSeq Cancer Probe	No specific data.
		HS ION	
		RE Buffer	No specific data.
		BSA Solution	No specific data.
		Enzyme Strip 1	No specific data.
		Enzyme Strip 2	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.

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**SECTION 11: Toxicological information**

	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 ION	No specific data.
	Primer 2 ION	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 ION	No specific data.
	Indexing Plate	
<b>Skin contact</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	No specific data.
	RE Buffer	No specific data.
	BSA Solution	No specific data.
	Enzyme Strip 1	No specific data.
	Enzyme Strip 2	No specific data.
	Enrichment Control DNA Hybridization Solution	No specific data. 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 ION	No specific data.
	Primer 2 ION	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 ION	No specific data.
	Indexing Plate	
<b>Eye contact</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe HS ION	No specific data.
	RE Buffer	No specific data.
	BSA Solution	No specific data.
	Enzyme Strip 1	No specific data.
	Enzyme Strip 2	No specific data.
	Enrichment Control DNA Hybridization Solution	No specific data. Adverse symptoms may include the following: pain or irritation watering redness
	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	Adverse symptoms may include the following:

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**SECTION 11: Toxicological information**

	pain or irritation
	watering
	redness
HS Wash 1 Solution	No specific data.
HS Wash 2 Solution	No specific data.
Primer 1 ION	No specific data.
Primer 2 ION	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 ION	No specific data.
Indexing Plate	

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

Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

Potential chronic health effects

<b>General</b>	: <input checked="" type="checkbox"/> ClearSeq Cancer Probe	No known significant effects or critical hazards.
	HS ION	
	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	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.
	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 ION	No known significant effects or critical hazards.
	Primer 2 ION	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 ION	No known significant effects or critical hazards.
	Indexing Plate	

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**SECTION 11: Toxicological information**

<b>Carcinogenicity</b>	: ClearSeq Cancer Probe	No known significant effects or critical hazards.
	HS ION	
	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	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.
	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 ION	No known significant effects or critical hazards.
	Primer 2 ION	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 ION	No known significant effects or critical hazards.
	Indexing Plate	
<b>Mutagenicity</b>	: ClearSeq Cancer Probe	No known significant effects or critical hazards.
	HS ION	
	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	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.
	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 ION	No known significant effects or critical hazards.
	Primer 2 ION	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 ION	No known significant effects or critical hazards.
	Indexing Plate	
<b>Teratogenicity</b>	: ClearSeq Cancer Probe	No known significant effects or critical hazards.
	HS ION	
	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	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.
	Enrichment Control DNA	No known significant effects or critical hazards.
	Hybridization Solution	May damage the unborn child.
	HS Hybridization Stop	No known significant effects or critical hazards.

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## SECTION 11: Toxicological information

	Solution	
	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 ION	No known significant effects or critical hazards.
	Primer 2 ION	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 ION Indexing Plate	No known significant effects or critical hazards.
<b>Developmental effects</b>	:  ClearSeq Cancer Probe HS ION	No known significant effects or critical hazards.
	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	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.
	Enrichment Control DNA 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 ION	No known significant effects or critical hazards.
	Primer 2 ION	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 ION Indexing Plate	No known significant effects or critical hazards.
<b>Fertility effects</b>	:  ClearSeq Cancer Probe HS ION	No known significant effects or critical hazards.
	RE Buffer	No known significant effects or critical hazards.
	BSA Solution	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.
	Enrichment Control DNA 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 ION	No known significant effects or critical hazards.
	Primer 2 ION	No known significant effects or critical hazards.



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**SECTION 11: Toxicological information**

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 ION	No known significant effects or critical hazards.
Indexing Plate	

**SECTION 12: Ecological information**

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>Hybridization Solution</b> Sodium chloride	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1.56 g/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks
	<b>HS Ligation Solution</b> Sodium chloride	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii
Acute EC50 519.6 mg/l Fresh water		Crustaceans - Cypris subglobosa	48 hours
Acute IC50 6.87 g/L Fresh water		Aquatic plants - Lemna minor	96 hours
Acute LC50 1.56 g/L Fresh water		Daphnia - Daphnia magna	48 hours
Acute LC50 1000000 µg/l Fresh water		Fish - Morone saxatilis - Larvae	96 hours
Chronic LC10 781 mg/l Fresh water		Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
Chronic NOEC 6 g/L Fresh water		Aquatic plants - Lemna minor	96 hours
Chronic NOEC 0.314 g/L Fresh water		Daphnia - Daphnia pulex	21 days
Chronic NOEC 100 mg/l Fresh water		Fish - Gambusia holbrooki - Adult	8 weeks
<b>HS DNA Ligase</b> Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-. omega.-hydroxy-		Acute EC50 210 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata
	Acute LC50 10800 µg/l Marine water	Crustaceans - Pandalus montagui - Adult	48 hours
	Acute LC50 8600 to 9800 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 7200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
<b>HS Capture Solution</b> Sodium chloride	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours

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**SECTION 12: Ecological information**

<b>Herculase II Reaction Buffer</b> Trometamol	Acute IC50 6.87 g/L Fresh water Acute LC50 1.56 g/L Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	96 hours 48 hours 96 hours 3 weeks
	Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 21 days 8 weeks
	Acute EC50 >980 mg/l Fresh water Acute NOEC 520 mg/l Fresh water	Daphnia Daphnia	48 hours 48 hours

**12.2 Persistence and degradability**

Not available.

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>Hybridization Solution</b> Formamide	-0.82	-	low
<b>HS DNA Ligase</b> Poly(oxy-1,2-ethanediyl), . alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-. omega.-hydroxy-	3.77	78.67	low
<b>Herculase II Reaction Buffer</b> Trometamol	-1.56	-	low

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

**PBT** : Not applicable.

**vPvB** : Not applicable.

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

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

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## SECTION 13: Disposal considerations

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

### Packaging

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

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

**ADR/RID / IMDG / IATA** : Not regulated.

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

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

## SECTION 15: Regulatory information

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

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XIV - List of substances subject to authorisation**

### Annex XIV

None of the components are listed.

**Substances of very high concern**

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
<b>Hybridization Solution</b> Formamide	Toxic to reproduction	Candidate	ED/87/2012	6/18/2012
<b>HS DNA Ligase</b> Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Substance of equivalent concern for environment	Recommended	ED/169/2012	2/10/2014

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

<input checked="" type="checkbox"/> ClearSeq Cancer Probe HS	Not applicable.
ION	
RE Buffer	Not applicable.
BSA Solution	Not applicable.
Enzyme Strip 1	Not applicable.
Enzyme Strip 2	Not applicable.
Enrichment Control DNA	Not applicable.
Hybridization Solution	Restricted to professional users.
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 ION	Not applicable.
Primer 2 ION	Not applicable.

**Date of issue/Date of revision** : 31/05/2017

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## SECTION 15: Regulatory information

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 ION Indexing Plate	Not applicable.

### Other EU regulations

#### Ozone depleting substances (1005/2009/EU)

Not listed.

#### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

#### Seveso Directive

This product is not controlled under the Seveso Directive.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

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.
Europe	: Not determined.
Japan	: <input checked="" type="checkbox"/> Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

### **15.2 Chemical safety assessment**

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

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## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

### Abbreviations and acronyms

: ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
<b>Hybridization Solution</b> Eye Irrit. 2, H319 Repr. 1B, H360D (Unborn child)	Calculation method Calculation method
<b>HS Capture Solution</b> Eye Irrit. 2, H319	Calculation method

### Full text of abbreviated H statements

<b>Hybridization Solution</b> H319 H360D	Causes serious eye irritation. May damage the unborn child.
<b>HS Ligation Solution</b> H319	Causes serious eye irritation.
<b>HS DNA Ligase</b> H315 H318 H411	Causes skin irritation. Causes serious eye damage. Toxic to aquatic life with long lasting effects.
<b>HS Capture Solution</b> H302 H312 H315 H319 H332 H335	Harmful if swallowed. Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation.
<b>Herculase II Reaction Buffer</b> H315 H319 H335	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

### Full text of classifications [CLP/GHS]

<b>Hybridization Solution</b> Eye Irrit. 2, H319 Repr. 1B, H360D	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 REPRODUCTIVE TOXICITY (Unborn child) - Category 1B
<b>HS Ligation Solution</b> Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
<b>HS DNA Ligase</b> Aquatic Chronic 2, H411 Eye Dam. 1, H318 Skin Irrit. 2, H315	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN CORROSION/IRRITATION - Category 2
<b>HS Capture Solution</b> Acute Tox. 4, H302 Acute Tox. 4, H312	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4

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## SECTION 16: Other information

Acute Tox. 4, H332  
Eye Irrit. 2, H319  
Skin Irrit. 2, H315  
STOT SE 3, H335

ACUTE TOXICITY (inhalation) - Category 4  
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2  
SKIN CORROSION/IRRITATION - Category 2  
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE  
(Respiratory tract irritation) - Category 3

### Herculase II Reaction Buffer

Eye Irrit. 2, H319  
Skin Irrit. 2, H315  
STOT SE 3, H335

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### Notice to reader

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