

# SAFETY DATA SHEET



SureVector Core Kit, Part Number G7514A

## Section 1. Identification

### 1.1 Product identifier

<b>Product name</b>	: SureVector Core Kit, Part Number G7514A
<b>Part No. (Chemical Kit)</b>	: G7514A
<b>Part No.</b>	: 5X SureSolution 5190-8625
	SureVector AmpR Selectable Marker 5190-8088
	SureVector KanR Selectable Marker 5190-8089
	SureVector ChIR Selectable Marker 5190-8090
	SureVector pUC Origin 5190-8091
	SureVector p15a Origin 5190-8092
	SureVector pBR322 Origin 5190-8093
	SureVector XP1 Linker 5190-8094
	SureVector yARS 5190-8095
	SureVector XP2 Linker 5190-8096
	SureVector NeoR Mammalian Selectable Marker 5190-8097
	SureVector LEU2 Yeast Selectable Marker 5190-8098
	SureVector LacI Repressor 5190-8099
	SureVector T7-HIS6 E. coli Promoter 5190-8100
	SureVector CMV-HIS6 Mammalian Promoter 5190-8101
	SureVector GAL1-HIS6 Yeast Promoter 5190-8102
	SureVector LacZ Control (N-term) 5190-8103
	SureVector Enzyme Mix 5190-8621
	10X SureVector Buffer 5190-8622
	dNTP Mix 200518-56
	DpnI 5190-8624
	XL1-Blue supercompetent cells 200236-41
	pUC 18 DNA Control Plasmid 200231-42
	Beta Mercaptoethanol 210200-43
<b>Validation date</b>	: 4/25/2017

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

<b>Material uses</b>	: Analytical reagent.
	5X SureSolution 0.1 ml (15 reactions)
	SureVector AmpR Selectable Marker 0.03 ml (15 reactions)
	SureVector KanR Selectable Marker 0.03 ml (15 reactions)
	SureVector ChIR Selectable Marker 0.03 ml (15 reactions)
	SureVector pUC Origin 0.03 ml (15 reactions)
	SureVector p15a Origin 0.03 ml (15 reactions)
	SureVector pBR322 Origin 0.03 ml (15 reactions)
	SureVector XP1 Linker 0.03 ml (15 reactions)
	SureVector yARS 0.03 ml (15 reactions)
	SureVector XP2 Linker 0.03 ml (15 reactions)
	SureVector NeoR Mammalian Selectable Marker 0.03 ml (15 reactions)
	SureVector LEU2 Yeast Selectable Marker 0.03 ml (15 reactions)
	SureVector LacI Repressor 0.03 ml (15 reactions)
	SureVector T7-HIS6 E. coli Promoter 0.03 ml (15 reactions)
	SureVector CMV-HIS6 Mammalian Promoter 0.03 ml (15 reactions)
	SureVector GAL1-HIS6 Yeast Promoter 0.03 ml (15 reactions)
	SureVector LacZ Control (N-term) 0.03 ml (15 reactions)
	SureVector Enzyme Mix 0.03 ml (15 reactions)
	10X SureVector Buffer 0.03 ml (15 reactions)

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dNTP Mix	0.03 ml
DpnI	0.015 ml (15 reactions)
XL1-Blue supercompetent cells	5 x 0.2 ml
pUC 18 DNA Control Plasmid	0.01 ml (0.1 ng/μl)
Beta Mercaptoethanol	0.025 ml (25 μl 1.42M)

### [1.3 Details of the supplier of the safety data sheet](#)

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

### [1.4 Emergency telephone number](#)

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

## Section 2. Hazards identification

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

<b>OSHA/HCS status</b> : 5X SureSolution	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector AmpR Selectable Marker	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector KanR Selectable Marker	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector ChIR Selectable Marker	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector pUC Origin	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector p15a Origin	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector pBR322 Origin	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector XP1 Linker	While this material is not considered hazardous by the

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	OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector yARS	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector XP2 Linker	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector NeoR Mammalian Selectable Marker	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector LEU2 Yeast Selectable Marker	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector LacI Repressor	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector T7-HIS6 E. coli Promoter	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector CMV-HIS6 Mammalian Promoter	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector GAL1-HIS6 Yeast Promoter	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SureVector LacZ Control (N-term)	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

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SureVector Enzyme Mix	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
10X SureVector Buffer	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
dNTP Mix	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Dpnl	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
XL1-Blue supercompetent cells	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
pUC 18 DNA Control Plasmid	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Beta Mercaptoethanol	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

#### 5X SureSolution

H227 FLAMMABLE LIQUIDS - Category 4  
H320 EYE IRRITATION - Category 2B

#### SureVector Enzyme Mix

H320 EYE IRRITATION - Category 2B

#### 10X SureVector Buffer

H319 EYE IRRITATION - Category 2A

#### Dpnl

H319 EYE IRRITATION - Category 2A

#### XL1-Blue supercompetent cells

H320 EYE IRRITATION - Category 2B

#### Beta Mercaptoethanol

H312 ACUTE TOXICITY (dermal) - Category 4  
H332 ACUTE TOXICITY (inhalation) - Category 4  
H315 SKIN IRRITATION - Category 2  
H318 SERIOUS EYE DAMAGE - Category 1  
H317 SKIN SENSITIZATION - Category 1

#### Ingredients of unknown toxicity

: 10X SureVector Buffer

Percentage of the mixture consisting of ingredient (s) of unknown toxicity: 3.2%

dNTP Mix

Percentage of the mixture consisting of ingredient (s) of unknown toxicity: 5.7%

### 2.2 GHS label elements

#### Hazard pictograms



#### Signal word

:

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	5X SureSolution	Warning
	SureVector AmpR Selectable Marker	No signal word.
	SureVector KanR Selectable Marker	No signal word.
	SureVector ChIR Selectable Marker	No signal word.
	SureVector pUC Origin	No signal word.
	SureVector p15a Origin	No signal word.
	SureVector pBR322 Origin	No signal word.
	SureVector XP1 Linker	No signal word.
	SureVector yARS	No signal word.
	SureVector XP2 Linker	No signal word.
	SureVector NeoR Mammalian Selectable Marker	No signal word.
	SureVector LEU2 Yeast Selectable Marker	No signal word.
	SureVector LacI Repressor	No signal word.
	SureVector T7-HIS6 E. coli Promoter	No signal word.
	SureVector CMV-HIS6 Mammalian Promoter	No signal word.
	SureVector GAL1-HIS6 Yeast Promoter	No signal word.
	SureVector LacZ Control (N-term)	No signal word.
	SureVector Enzyme Mix	Warning
	10X SureVector Buffer	Warning
	dNTP Mix	No signal word.
	DpnI	Warning
	XL1-Blue supercompetent cells	Warning
	pUC 18 DNA Control Plasmid	No signal word.
	Beta Mercaptoethanol	Danger
<b>Hazard statements</b>	: 5X SureSolution	H227 - Combustible liquid. H320 - Causes eye irritation.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	H320 - Causes eye irritation.

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10X SureVector Buffer	GHS SYMBOL - <b>Exclamation mark</b> - H319 - Causes serious eye irritation.
dNTP Mix	No known significant effects or critical hazards.
DpnI	GHS SYMBOL - <b>Exclamation mark</b> - H319 - Causes serious eye irritation.
XL1-Blue supercompetent cells	H320 - Causes eye irritation.
pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
Beta Mercaptoethanol	GHS SYMBOL - <b>Exclamation mark</b> - <b>Corrosion</b> - H312 + H332 - Harmful in contact with skin or if inhaled. H318 - Causes serious eye damage. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction.

### Precautionary statements

#### Prevention

: 5X SureSolution	P280 - Wear protective gloves. Wear eye or face protection. P210 - Keep away from flames and hot surfaces. - No smoking. P264 - Wash hands thoroughly after handling.
SureVector AmpR Selectable Marker	Not applicable.
SureVector KanR Selectable Marker	Not applicable.
SureVector ChIR Selectable Marker	Not applicable.
SureVector pUC Origin	Not applicable.
SureVector p15a Origin	Not applicable.
SureVector pBR322 Origin	Not applicable.
SureVector XP1 Linker	Not applicable.
SureVector yARS	Not applicable.
SureVector XP2 Linker	Not applicable.
SureVector NeoR Mammalian Selectable Marker	Not applicable.
SureVector LEU2 Yeast Selectable Marker	Not applicable.
SureVector LacI Repressor	Not applicable.
SureVector T7-HIS6 E. coli Promoter	Not applicable.
SureVector CMV-HIS6 Mammalian Promoter	Not applicable.
SureVector GAL1-HIS6 Yeast Promoter	Not applicable.
SureVector LacZ Control (N-term)	Not applicable.
SureVector Enzyme Mix	P264 - Wash hands thoroughly after handling.
10X SureVector Buffer	P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
dNTP Mix	Not applicable.
DpnI	P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
XL1-Blue supercompetent cells	P264 - Wash hands thoroughly after handling.
pUC 18 DNA Control Plasmid	Not applicable.
Beta Mercaptoethanol	P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing vapor. P264 - Wash hands thoroughly after handling. P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.



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<b>Response</b>	: 5X SureSolution	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector p15a Origin	Not applicable.
	SureVector pBR322 Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector yARS	Not applicable.
	SureVector XP2 Linker	Not applicable.
	SureVector NeoR Mammalian Selectable Marker	Not applicable.
	SureVector LEU2 Yeast Selectable Marker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector CMV-HIS6 Mammalian Promoter	Not applicable.
	SureVector GAL1-HIS6 Yeast Promoter	Not applicable.
	SureVector LacZ Control (N-term)	Not applicable.
	SureVector Enzyme Mix	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
	10X SureVector Buffer	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
	dNTP Mix	Not applicable.
	DpnI	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
	XL1-Blue supercompetent cells	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
	pUC 18 DNA Control Plasmid	Not applicable.
	Beta Mercaptoethanol	P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if

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		you feel unwell. P302 + P352 + P312 + P363 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention. P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
<b>Storage</b>	: 5X SureSolution	P403 - Store in a well-ventilated place. P235 - Keep cool. Not applicable.
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector p15a Origin	Not applicable.
	SureVector pBR322 Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector yARS	Not applicable.
	SureVector XP2 Linker	Not applicable.
	SureVector NeoR Mammalian Selectable Marker	Not applicable.
	SureVector LEU2 Yeast Selectable Marker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector CMV-HIS6 Mammalian Promoter	Not applicable.
	SureVector GAL1-HIS6 Yeast Promoter	Not applicable.
	SureVector LacZ Control (N-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.
	XL1-Blue supercompetent cells	Not applicable.
	pUC 18 DNA Control Plasmid	Not applicable.
	Beta Mercaptoethanol	Not applicable.
<b>Disposal</b>	: 5X SureSolution	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector p15a Origin	Not applicable.
	SureVector pBR322 Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector yARS	Not applicable.



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	SureVector XP2 Linker	Not applicable.
	SureVector NeoR Mammalian Selectable Marker	Not applicable.
	SureVector LEU2 Yeast Selectable Marker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector CMV-HIS6 Mammalian Promoter	Not applicable.
	SureVector GAL1-HIS6 Yeast Promoter	Not applicable.
	SureVector LacZ Control (N-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.
	XL1-Blue supercompetent cells	Not applicable.
	pUC 18 DNA Control Plasmid	Not applicable.
	Beta Mercaptoethanol	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	: 5X SureSolution	None known.
	SureVector AmpR Selectable Marker	None known.
	SureVector KanR Selectable Marker	None known.
	SureVector ChIR Selectable Marker	None known.
	SureVector pUC Origin	None known.
	SureVector p15a Origin	None known.
	SureVector pBR322 Origin	None known.
	SureVector XP1 Linker	None known.
	SureVector yARS	None known.
	SureVector XP2 Linker	None known.
	SureVector NeoR Mammalian Selectable Marker	None known.
	SureVector LEU2 Yeast Selectable Marker	None known.
	SureVector LacI Repressor	None known.
	SureVector T7-HIS6 E. coli Promoter	None known.
	SureVector CMV-HIS6 Mammalian Promoter	None known.
	SureVector GAL1-HIS6 Yeast Promoter	None known.
	SureVector LacZ Control (N-term)	None known.
	SureVector Enzyme Mix	None known.
	10X SureVector Buffer	None known.
	dNTP Mix	None known.
	DpnI	None known.
	XL1-Blue supercompetent cells	None known.
	pUC 18 DNA Control Plasmid	None known.
	Beta Mercaptoethanol	None known.

### 2.3 Other hazards

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<b>Hazards not otherwise classified</b>	: 5X SureSolution	None known.
	SureVector AmpR Selectable Marker	None known.
	SureVector KanR Selectable Marker	None known.
	SureVector ChIR Selectable Marker	None known.
	SureVector pUC Origin	None known.
	SureVector p15a Origin	None known.
	SureVector pBR322 Origin	None known.
	SureVector XP1 Linker	None known.
	SureVector yARS	None known.
	SureVector XP2 Linker	None known.
	SureVector NeoR Mammalian Selectable Marker	None known.
	SureVector LEU2 Yeast Selectable Marker	None known.
	SureVector LacI Repressor	None known.
	SureVector T7-HIS6 E. coli Promoter	None known.
	SureVector CMV-HIS6 Mammalian Promoter	None known.
	SureVector GAL1-HIS6 Yeast Promoter	None known.
	SureVector LacZ Control (N-term)	None known.
	SureVector Enzyme Mix	None known.
	10X SureVector Buffer	None known.
	dNTP Mix	None known.
	DpnI	None known.
	XL1-Blue supercompetent cells	None known.
	pUC 18 DNA Control Plasmid	None known.
	Beta Mercaptoethanol	None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: 5X SureSolution	Substance
	SureVector AmpR Selectable Marker	Mixture
	SureVector KanR Selectable Marker	Mixture
	SureVector ChIR Selectable Marker	Mixture
	SureVector pUC Origin	Mixture
	SureVector p15a Origin	Mixture
	SureVector pBR322 Origin	Mixture
	SureVector XP1 Linker	Mixture
	SureVector yARS	Mixture
	SureVector XP2 Linker	Mixture
	SureVector NeoR Mammalian Selectable Marker	Mixture
	SureVector LEU2 Yeast Selectable Marker	Mixture
	SureVector LacI Repressor	Mixture
	SureVector T7-HIS6 E. coli Promoter	Mixture
	SureVector CMV-HIS6 Mammalian Promoter	Mixture
	SureVector GAL1-HIS6 Yeast Promoter	Mixture
	SureVector LacZ Control (N-term)	Mixture
	SureVector Enzyme Mix	Mixture
	10X SureVector Buffer	Mixture
	dNTP Mix	Mixture
	DpnI	Mixture

## Section 3. Composition/information on ingredients

XL1-Blue supercompetent cells	Mixture
pUC 18 DNA Control Plasmid	Mixture
Beta Mercaptoethanol	Mixture

Ingredient name	%	CAS number
<b>5X SureSolution</b> Dimethyl sulfoxide	100	67-68-5
<b>SureVector Enzyme Mix</b> Glycerol	≥50 - ≤75	56-81-5
<b>10X SureVector Buffer</b> Potassium chloride	≤5	7447-40-7
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	≤5	1185-53-1
Ammonium sulphate	≤3	7783-20-2
Polyoxyethylene octyl phenyl ether	≤2.3	9002-93-1
<b>dNTP Mix</b> 2'-Deoxyguanosine 5'-(tetrahydrogen triphosphate)	≤3	2564-35-4
2'-Deoxyadenosine 5'-(tetrahydrogen triphosphate)	≤3	1927-31-7
<b>Dpnl</b> Glycerol	≥50 - ≤75	56-81-5
Sodium chloride	≤3	7647-14-5
<b>XL1-Blue supercompetent cells</b> Glycerol	≥10 - ≤25	56-81-5
Dimethyl sulfoxide	≤10	67-68-5
Potassium chloride	≤3	7447-40-7
<b>Beta Mercaptoethanol</b> 2-Mercaptoethanol	≤12	60-24-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<b>Eye contact</b>	: 5X SureSolution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
	SureVector AmpR Selectable Marker	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.
	SureVector KanR Selectable Marker	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.
	SureVector ChIR Selectable Marker	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

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SureVector pUC Origin	Check for and remove any contact lenses. Get medical attention if irritation occurs. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
SureVector p15a Origin	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.
SureVector pBR322 Origin	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.
SureVector XP1 Linker	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.
SureVector yARS	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.
SureVector XP2 Linker	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.
SureVector NeoR Mammalian Selectable Marker	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.
SureVector LEU2 Yeast Selectable Marker	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.
SureVector LacI Repressor	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.
SureVector T7-HIS6 E. coli Promoter	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.
SureVector CMV-HIS6 Mammalian Promoter	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.
SureVector GAL1-HIS6 Yeast Promoter	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.
SureVector LacZ Control (N-term)	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.
SureVector Enzyme Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

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10X SureVector Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
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.
Dpnl	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.
XL1-Blue supercompetent cells	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
pUC 18 DNA Control Plasmid	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.
Beta Mercaptoethanol	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
<b>Inhalation</b> : 5X SureSolution	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.
SureVector AmpR Selectable Marker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector KanR Selectable Marker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector ChIR Selectable Marker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector pUC Origin	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector p15a Origin	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector pBR322 Origin	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical

## Section 4. First aid measures

SureVector XP1 Linker	attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector yARS	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector XP2 Linker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector NeoR Mammalian Selectable Marker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector LEU2 Yeast Selectable Marker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector LacI Repressor	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector T7-HIS6 E. coli Promoter	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector CMV-HIS6 Mammalian Promoter	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector GAL1-HIS6 Yeast Promoter	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector LacZ Control (N-term)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector Enzyme Mix	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.
10X SureVector Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if 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.



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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.
Dpnl		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.
XL1-Blue supercompetent cells		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.
pUC 18 DNA Control Plasmid		Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Beta Mercaptoethanol		Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Skin contact</b>	: 5X SureSolution	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.
	SureVector AmpR Selectable Marker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector KanR Selectable Marker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

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SureVector ChIR Selectable Marker	medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector pUC Origin	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector p15a Origin	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector pBR322 Origin	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector XP1 Linker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector yARS	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector XP2 Linker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector NeoR Mammalian Selectable Marker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector LEU2 Yeast Selectable Marker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector LacI Repressor	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector T7-HIS6 E. coli Promoter	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector CMV-HIS6 Mammalian Promoter	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector GAL1-HIS6 Yeast Promoter	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector LacZ Control (N-term)	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
SureVector Enzyme Mix	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.
10X SureVector Buffer	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.
dNTP Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
DpnI	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash

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		clothing before reuse. Clean shoes thoroughly before reuse.
	XL1-Blue supercompetent cells	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.
	pUC 18 DNA Control Plasmid	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Beta Mercaptoethanol	Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Ingestion</b>	: 5X SureSolution	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.
	SureVector AmpR Selectable Marker	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.
	SureVector KanR Selectable Marker	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.
	SureVector ChIR Selectable Marker	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.
	SureVector pUC Origin	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable

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SureVector p15a Origin	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.
SureVector pBR322 Origin	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.
SureVector XP1 Linker	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.
SureVector yARS	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.
SureVector XP2 Linker	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.
SureVector NeoR Mammalian Selectable Marker	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.
SureVector LEU2 Yeast Selectable Marker	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.
SureVector LacI Repressor	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

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SureVector T7-HIS6 E. coli Promoter	<p>unless directed to do so by medical personnel. Get medical attention if symptoms occur.</p> <p>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.</p>
SureVector CMV-HIS6 Mammalian Promoter	<p>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.</p>
SureVector GAL1-HIS6 Yeast Promoter	<p>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.</p>
SureVector LacZ Control (N-term)	<p>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.</p>
SureVector Enzyme Mix	<p>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.</p>
10X SureVector Buffer	<p>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</p>

## Section 4. First aid measures

dNTP Mix	<p>medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.</p> <p>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.</p>
Dpnl	<p>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.</p>
XL1-Blue supercompetent cells	<p>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.</p>
pUC 18 DNA Control Plasmid	<p>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.</p>
Beta Mercaptoethanol	<p>Get medical attention immediately. Call a poison center or physician. 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</p>



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kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	: 5X SureSolution	Causes eye irritation.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	Causes eye irritation.
	10X SureVector Buffer	Causes serious eye irritation.
	dNTP Mix	No known significant effects or critical hazards.
DpnI	Causes serious eye irritation.	
XL1-Blue supercompetent cells	Causes eye irritation.	
pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.	
Beta Mercaptoethanol	Causes serious eye damage.	
<b>Inhalation</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast	No known significant effects or critical hazards.

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	Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	Harmful if inhaled.
<b>Skin contact</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
<b>Ingestion</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.

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SureVector XP1 Linker	No known significant effects or critical hazards.
SureVector yARS	No known significant effects or critical hazards.
SureVector XP2 Linker	No known significant effects or critical hazards.
SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
SureVector LacI Repressor	No known significant effects or critical hazards.
SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
SureVector Enzyme Mix	No known significant effects or critical hazards.
10X SureVector Buffer	No known significant effects or critical hazards.
dNTP Mix	No known significant effects or critical hazards.
DpnI	No known significant effects or critical hazards.
XL1-Blue supercompetent cells	No known significant effects or critical hazards.
pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
Beta Mercaptoethanol	No known significant effects or critical hazards.

### Over-exposure signs/symptoms

#### **Eye contact**

: 5X SureSolution

Adverse symptoms may include the following:  
irritation  
watering  
redness

SureVector AmpR Selectable Marker	No specific data.
SureVector KanR Selectable Marker	No specific data.
SureVector ChIR Selectable Marker	No specific data.
SureVector pUC Origin	No specific data.
SureVector p15a Origin	No specific data.
SureVector pBR322 Origin	No specific data.
SureVector XP1 Linker	No specific data.
SureVector yARS	No specific data.
SureVector XP2 Linker	No specific data.
SureVector NeoR Mammalian Selectable Marker	No specific data.
SureVector LEU2 Yeast Selectable Marker	No specific data.
SureVector LacI Repressor	No specific data.
SureVector T7-HIS6 E. coli Promoter	No specific data.
SureVector CMV-HIS6 Mammalian Promoter	No specific data.
SureVector GAL1-HIS6 Yeast Promoter	No specific data.
SureVector LacZ Control (N-term)	No specific data.
SureVector Enzyme Mix	Adverse symptoms may include the following: irritation watering redness
10X SureVector Buffer	Adverse symptoms may include the following: pain or irritation watering redness

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	dNTP Mix	No specific data.
	DpnI	Adverse symptoms may include the following: pain or irritation watering redness
	XL1-Blue supercompetent cells	Adverse symptoms may include the following: irritation watering redness
	pUC 18 DNA Control Plasmid	No specific data.
	Beta Mercaptoethanol	Adverse symptoms may include the following: pain watering redness
<b>Inhalation</b>	: 5X SureSolution	No specific data.
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector p15a Origin	No specific data.
	SureVector pBR322 Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector yARS	No specific data.
	SureVector XP2 Linker	No specific data.
	SureVector NeoR Mammalian Selectable Marker	No specific data.
	SureVector LEU2 Yeast Selectable Marker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector CMV-HIS6 Mammalian Promoter	No specific data.
	SureVector GAL1-HIS6 Yeast Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.
	XL1-Blue supercompetent cells	No specific data.
	pUC 18 DNA Control Plasmid	No specific data.
	Beta Mercaptoethanol	No specific data.
<b>Skin contact</b>	: 5X SureSolution	No specific data.
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector p15a Origin	No specific data.
	SureVector pBR322 Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector yARS	No specific data.
	SureVector XP2 Linker	No specific data.

## Section 4. First aid measures

	SureVector NeoR Mammalian Selectable Marker	No specific data.
	SureVector LEU2 Yeast Selectable Marker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector CMV-HIS6 Mammalian Promoter	No specific data.
	SureVector GAL1-HIS6 Yeast Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.
	XL1-Blue supercompetent cells	No specific data.
	pUC 18 DNA Control Plasmid	No specific data.
	Beta Mercaptoethanol	Adverse symptoms may include the following: pain or irritation redness blistering may occur
<b>Ingestion</b>	: 5X SureSolution	No specific data.
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector p15a Origin	No specific data.
	SureVector pBR322 Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector yARS	No specific data.
	SureVector XP2 Linker	No specific data.
	SureVector NeoR Mammalian Selectable Marker	No specific data.
	SureVector LEU2 Yeast Selectable Marker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector CMV-HIS6 Mammalian Promoter	No specific data.
	SureVector GAL1-HIS6 Yeast Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.
	XL1-Blue supercompetent cells	No specific data.
	pUC 18 DNA Control Plasmid	No specific data.
	Beta Mercaptoethanol	Adverse symptoms may include the following: stomach pains

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

## Section 4. First aid measures

<b>Notes to physician</b>	: 5X SureSolution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector AmpR Selectable Marker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector KanR Selectable Marker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector ChIR Selectable Marker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector pUC Origin	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector p15a Origin	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector pBR322 Origin	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector XP1 Linker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector yARS	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector XP2 Linker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector NeoR Mammalian Selectable Marker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector LEU2 Yeast Selectable Marker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector LacI Repressor	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector T7-HIS6 E. coli Promoter	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector CMV-HIS6 Mammalian Promoter	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector GAL1-HIS6 Yeast Promoter	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector LacZ Control (N-term)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector Enzyme Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	10X SureVector Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	dNTP Mix	In case of inhalation of decomposition products in a



## Section 4. First aid measures

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.

### Specific treatments

DpnI		No specific treatment.
XL1-Blue supercompetent cells		No specific treatment.
pUC 18 DNA Control Plasmid		No specific treatment.
Beta Mercaptoethanol		No specific treatment.
5X SureSolution		No specific treatment.
SureVector AmpR Selectable Marker		No specific treatment.
SureVector KanR Selectable Marker		No specific treatment.
SureVector ChIR Selectable Marker		No specific treatment.
SureVector pUC Origin		No specific treatment.
SureVector p15a Origin		No specific treatment.
SureVector pBR322 Origin		No specific treatment.
SureVector XP1 Linker		No specific treatment.
SureVector yARS		No specific treatment.
SureVector XP2 Linker		No specific treatment.
SureVector NeoR Mammalian Selectable Marker		No specific treatment.
SureVector LEU2 Yeast Selectable Marker		No specific treatment.
SureVector LacI Repressor		No specific treatment.
SureVector T7-HIS6 E. coli Promoter		No specific treatment.
SureVector CMV-HIS6 Mammalian Promoter		No specific treatment.
SureVector GAL1-HIS6 Yeast Promoter		No specific treatment.
SureVector LacZ Control (N-term)		No specific treatment.
SureVector Enzyme Mix		No specific treatment.
10X SureVector Buffer		No specific treatment.
dNTP Mix		No specific treatment.
DpnI		No specific treatment.
XL1-Blue supercompetent cells		No specific treatment.
pUC 18 DNA Control Plasmid		No specific treatment.
Beta Mercaptoethanol		No specific treatment.

### Protection of first-aiders

5X SureSolution		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.
SureVector AmpR Selectable Marker		No action shall be taken involving any personal risk or without suitable training.
SureVector KanR Selectable Marker		No action shall be taken involving any personal risk or without suitable training.
SureVector ChIR Selectable Marker		No action shall be taken involving any personal risk or without suitable training.
SureVector pUC Origin		No action shall be taken involving any personal risk or without suitable training.

## Section 4. First aid measures

SureVector p15a Origin	No action shall be taken involving any personal risk or without suitable training.
SureVector pBR322 Origin	No action shall be taken involving any personal risk or without suitable training.
SureVector XP1 Linker	No action shall be taken involving any personal risk or without suitable training.
SureVector yARS	No action shall be taken involving any personal risk or without suitable training.
SureVector XP2 Linker	No action shall be taken involving any personal risk or without suitable training.
SureVector NeoR Mammalian Selectable Marker	No action shall be taken involving any personal risk or without suitable training.
SureVector LEU2 Yeast Selectable Marker	No action shall be taken involving any personal risk or without suitable training.
SureVector LacI Repressor	No action shall be taken involving any personal risk or without suitable training.
SureVector T7-HIS6 E. coli Promoter	No action shall be taken involving any personal risk or without suitable training.
SureVector CMV-HIS6 Mammalian Promoter	No action shall be taken involving any personal risk or without suitable training.
SureVector GAL1-HIS6 Yeast Promoter	No action shall be taken involving any personal risk or without suitable training.
SureVector LacZ Control (N-term)	No action shall be taken involving any personal risk or without suitable training.
SureVector Enzyme Mix	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.
10X SureVector Buffer	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
dNTP Mix	No action shall be taken involving any personal risk or without suitable training.
DpnI	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.
XL1-Blue supercompetent cells	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.
pUC 18 DNA Control Plasmid	No action shall be taken involving any personal risk or without suitable training.
Beta Mercaptoethanol	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.

See toxicological information (Section 11)



## Section 5. Fire-fighting measures

SureVector XP1 Linker	None known.
SureVector yARS	None known.
SureVector XP2 Linker	None known.
SureVector NeoR Mammalian Selectable Marker	None known.
SureVector LEU2 Yeast Selectable Marker	None known.
SureVector LacI Repressor	None known.
SureVector T7-HIS6 E. coli Promoter	None known.
SureVector CMV-HIS6 Mammalian Promoter	None known.
SureVector GAL1-HIS6 Yeast Promoter	None known.
SureVector LacZ Control (N-term)	None known.
SureVector Enzyme Mix	None known.
10X SureVector Buffer	None known.
dNTP Mix	None known.
DpnI	None known.
XL1-Blue supercompetent cells	None known.
pUC 18 DNA Control Plasmid	None known.
Beta Mercaptoethanol	None known.

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

#### **Specific hazards arising from the chemical**

: 5X SureSolution

Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

SureVector AmpR Selectable Marker	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector KanR Selectable Marker	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector ChIR Selectable Marker	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector pUC Origin	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector p15a Origin	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector pBR322 Origin	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector XP1 Linker	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector yARS	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector XP2 Linker	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector NeoR Mammalian Selectable Marker	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector LEU2 Yeast Selectable Marker	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector LacI Repressor	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector T7-HIS6 E. coli Promoter	In a fire or if heated, a pressure increase will occur and the container may burst.

## Section 5. Fire-fighting measures

	SureVector CMV-HIS6 Mammalian Promoter	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector GAL1-HIS6 Yeast Promoter	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector LacZ Control (N-term)	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector Enzyme Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	10X SureVector Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	dNTP Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	Dpnl	In a fire or if heated, a pressure increase will occur and the container may burst.
	XL1-Blue supercompetent cells	In a fire or if heated, a pressure increase will occur and the container may burst.
	pUC 18 DNA Control Plasmid	In a fire or if heated, a pressure increase will occur and the container may burst.
	Beta Mercaptoethanol	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	: 5X SureSolution	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector p15a Origin	No specific data.
	SureVector pBR322 Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector yARS	No specific data.
	SureVector XP2 Linker	No specific data.
	SureVector NeoR Mammalian Selectable Marker	No specific data.
	SureVector LEU2 Yeast Selectable Marker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector CMV-HIS6 Mammalian Promoter	No specific data.
	SureVector GAL1-HIS6 Yeast Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	10X SureVector Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides

## Section 5. Fire-fighting measures

dNTP Mix	sulfur oxides halogenated compounds metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides phosphorus oxides
Dpnl	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
XL1-Blue supercompetent cells	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides halogenated compounds metal oxide/oxides
pUC 18 DNA Control Plasmid Beta Mercaptoethanol	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides

### 5.3 Advice for firefighters

#### **Special protective actions for fire-fighters**

: 5X SureSolution	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
SureVector AmpR Selectable Marker	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.
SureVector KanR Selectable Marker	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.
SureVector ChIR Selectable Marker	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.
SureVector pUC Origin	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.
SureVector p15a Origin	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.
SureVector pBR322 Origin	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No



## Section 5. Fire-fighting measures

	action shall be taken involving any personal risk or without suitable training.
SureVector XP1 Linker	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.
SureVector yARS	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.
SureVector XP2 Linker	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.
SureVector NeoR Mammalian Selectable Marker	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.
SureVector LEU2 Yeast Selectable Marker	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.
SureVector LacI Repressor	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.
SureVector T7-HIS6 E. coli Promoter	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.
SureVector CMV-HIS6 Mammalian Promoter	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.
SureVector GAL1-HIS6 Yeast Promoter	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.
SureVector LacZ Control (N-term)	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.
SureVector Enzyme 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.
10X SureVector 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.
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.
DpnI	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.
XL1-Blue supercompetent cells	Promptly isolate the scene by removing all persons

## Section 5. Fire-fighting measures

from the 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.

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.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Special protective equipment for fire-fighters

: 5X SureSolution

pUC 18 DNA Control Plasmid

Beta Mercaptoethanol

SureVector AmpR Selectable Marker

SureVector KanR Selectable Marker

SureVector ChIR Selectable Marker

SureVector pUC Origin

SureVector p15a Origin

SureVector pBR322 Origin

SureVector XP1 Linker

SureVector yARS

SureVector XP2 Linker

SureVector NeoR Mammalian Selectable Marker

SureVector LEU2 Yeast Selectable Marker

## Section 5. Fire-fighting measures

SureVector LacI Repressor	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector T7-HIS6 E. coli Promoter	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector CMV-HIS6 Mammalian Promoter	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector GAL1-HIS6 Yeast Promoter	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector LacZ Control (N-term)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector Enzyme Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
10X SureVector Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
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.
DpnI	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
XL1-Blue supercompetent cells	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
pUC 18 DNA Control Plasmid	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Beta Mercaptoethanol	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### [6.1 Personal precautions, protective equipment and emergency procedures](#)

**For non-emergency personnel** : 5X SureSolution

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist.

## Section 6. Accidental release measures

SureVector AmpR Selectable Marker	Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector KanR Selectable Marker	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector ChIR Selectable Marker	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector pUC Origin	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector p15a Origin	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector pBR322 Origin	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector XP1 Linker	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector yARS	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector XP2 Linker	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector NeoR Mammalian Selectable Marker	No action shall be taken involving any personal risk or without suitable training. Evacuate

## Section 6. Accidental release measures

SureVector LEU2 Yeast Selectable Marker	surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector LacI Repressor	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector T7-HIS6 E. coli Promoter	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector CMV-HIS6 Mammalian Promoter	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector GAL1-HIS6 Yeast Promoter	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector LacZ Control (N-term)	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
SureVector Enzyme 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
10X SureVector Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
dNTP Mix	No action shall be taken involving any personal

## Section 6. Accidental release measures

Dpnl	risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
XL1-Blue supercompetent cells	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
pUC 18 DNA Control Plasmid	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
Beta Mercaptoethanol	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders :</b> 5X SureSolution	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector AmpR Selectable Marker	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector KanR Selectable Marker	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector ChIR Selectable Marker	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector pUC Origin	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector p15a Origin	If specialized clothing is required to deal with the



## Section 6. Accidental release measures

SureVector pBR322 Origin	spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector XP1 Linker	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector yARS	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector XP2 Linker	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector NeoR Mammalian Selectable Marker	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector LEU2 Yeast Selectable Marker	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector LacI Repressor	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector T7-HIS6 E. coli Promoter	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector CMV-HIS6 Mammalian Promoter	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector GAL1-HIS6 Yeast Promoter	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector LacZ Control (N-term)	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector Enzyme Mix	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
10X SureVector Buffer	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
dNTP Mix	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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DpnI	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
XL1-Blue supercompetent cells	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
pUC 18 DNA Control Plasmid	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Beta Mercaptoethanol	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: 5X SureSolution	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector AmpR Selectable Marker	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector KanR Selectable Marker	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector ChIR Selectable Marker	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector pUC Origin	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector p15a Origin	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector pBR322 Origin	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector XP1 Linker	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector yARS	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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	Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector XP2 Linker	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector NeoR Mammalian Selectable Marker	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector LEU2 Yeast Selectable Marker	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector LacI Repressor	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector T7-HIS6 E. coli Promoter	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector CMV-HIS6 Mammalian Promoter	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector GAL1-HIS6 Yeast Promoter	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector LacZ Control (N-term)	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector Enzyme Mix	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
10X SureVector Buffer	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
dNTP Mix	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
DpnI	Avoid dispersal of spilled material and runoff and

## Section 6. Accidental release measures

	contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
XL1-Blue supercompetent cells	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
pUC 18 DNA Control Plasmid	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Beta Mercaptoethanol	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

**Methods for cleaning up** : 5X SureSolution

	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
SureVector AmpR Selectable Marker	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.
SureVector KanR Selectable Marker	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.
SureVector ChIR Selectable Marker	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.
SureVector pUC Origin	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.
SureVector p15a Origin	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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SureVector pBR322 Origin	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.
SureVector XP1 Linker	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.
SureVector yARS	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.
SureVector XP2 Linker	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.
SureVector NeoR Mammalian Selectable Marker	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.
SureVector LEU2 Yeast Selectable Marker	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.
SureVector LacI Repressor	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.
SureVector T7-HIS6 E. coli Promoter	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.
SureVector CMV-HIS6 Mammalian Promoter	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.
SureVector GAL1-HIS6 Yeast Promoter	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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SureVector LacZ Control (N-term)	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.
SureVector Enzyme 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.
10X SureVector 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.
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.
Dpnl	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.
XL1-Blue supercompetent cells	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.
pUC 18 DNA Control Plasmid	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.
Beta Mercaptoethanol	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### [7.1 Precautions for safe handling](#)



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<b>Protective measures</b>	: 5X SureSolution	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.
	SureVector AmpR Selectable Marker	Put on appropriate personal protective equipment (see Section 8).
	SureVector KanR Selectable Marker	Put on appropriate personal protective equipment (see Section 8).
	SureVector ChIR Selectable Marker	Put on appropriate personal protective equipment (see Section 8).
	SureVector pUC Origin	Put on appropriate personal protective equipment (see Section 8).
	SureVector p15a Origin	Put on appropriate personal protective equipment (see Section 8).
	SureVector pBR322 Origin	Put on appropriate personal protective equipment (see Section 8).
	SureVector XP1 Linker	Put on appropriate personal protective equipment (see Section 8).
	SureVector yARS	Put on appropriate personal protective equipment (see Section 8).
	SureVector XP2 Linker	Put on appropriate personal protective equipment (see Section 8).
	SureVector NeoR Mammalian Selectable Marker	Put on appropriate personal protective equipment (see Section 8).
	SureVector LEU2 Yeast Selectable Marker	Put on appropriate personal protective equipment (see Section 8).
	SureVector LacI Repressor	Put on appropriate personal protective equipment (see Section 8).
	SureVector T7-HIS6 E. coli Promoter	Put on appropriate personal protective equipment (see Section 8).
	SureVector CMV-HIS6 Mammalian Promoter	Put on appropriate personal protective equipment (see Section 8).
	SureVector GAL1-HIS6 Yeast Promoter	Put on appropriate personal protective equipment (see Section 8).
	SureVector LacZ Control (N-term)	Put on appropriate personal protective equipment (see Section 8).
	SureVector Enzyme Mix	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	10X SureVector Buffer	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or

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mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

dNTP Mix	Put on appropriate personal protective equipment (see Section 8).
DpnI	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
XL1-Blue supercompetent cells	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
pUC 18 DNA Control Plasmid	Put on appropriate personal protective equipment (see Section 8).
Beta Mercaptoethanol	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.
<b>Advice on general occupational hygiene</b>	
: 5X SureSolution	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.
SureVector AmpR Selectable Marker	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.
SureVector KanR Selectable Marker	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.
SureVector ChIR Selectable	Eating, drinking and smoking should be prohibited

## Section 7. Handling and storage

Marker	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.
SureVector pUC Origin	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.
SureVector p15a Origin	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.
SureVector pBR322 Origin	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.
SureVector XP1 Linker	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.
SureVector yARS	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.
SureVector XP2 Linker	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.
SureVector NeoR Mammalian Selectable Marker	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.
SureVector LEU2 Yeast Selectable Marker	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

## Section 7. Handling and storage

SureVector LacI Repressor	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.
SureVector T7-HIS6 E. coli Promoter	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.
SureVector CMV-HIS6 Mammalian Promoter	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.
SureVector GAL1-HIS6 Yeast Promoter	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.
SureVector LacZ Control (N-term)	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.
SureVector Enzyme 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.
10X SureVector 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.
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.

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Dpnl	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.
XL1-Blue supercompetent cells	Potentially biohazardous material. 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.
pUC 18 DNA Control Plasmid	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.
Beta Mercaptoethanol	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

: 5X SureSolution	Storage temperature: -20°C (-4°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
SureVector AmpR Selectable Marker	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
SureVector KanR Selectable Marker	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

## Section 7. Handling and storage

SureVector ChIR Selectable Marker

opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

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

SureVector pUC Origin

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

SureVector p15a Origin

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

SureVector pBR322 Origin

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

SureVector XP1 Linker

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

SureVector yARS

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



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SureVector XP2 Linker	<p>until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p> <p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
SureVector NeoR Mammalian Selectable Marker	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
SureVector LEU2 Yeast Selectable Marker	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
SureVector LacI Repressor	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
SureVector T7-HIS6 E. coli Promoter	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
SureVector CMV-HIS6 Mammalian Promoter	<p>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</p>

## Section 7. Handling and storage

SureVector GAL1-HIS6 Yeast Promoter	<p>and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p> <p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
SureVector LacZ Control (N-term)	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
SureVector Enzyme Mix	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
10X SureVector Buffer	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
dNTP Mix	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
DpnI	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from</p>

## Section 7. Handling and storage

XL1-Blue supercompetent cells	incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
pUC 18 DNA Control Plasmid	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
Beta Mercaptoethanol	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

#### Recommendations

: 5X SureSolution	Industrial applications, Professional applications.
SureVector AmpR Selectable Marker	Industrial applications, Professional applications.
SureVector KanR Selectable Marker	Industrial applications, Professional applications.
SureVector ChIR Selectable Marker	Industrial applications, Professional applications.
SureVector pUC Origin	Industrial applications, Professional applications.
SureVector p15a Origin	Industrial applications, Professional applications.
SureVector pBR322 Origin	Industrial applications, Professional applications.
SureVector XP1 Linker	Industrial applications, Professional applications.
SureVector yARS	Industrial applications, Professional applications.
SureVector XP2 Linker	Industrial applications, Professional applications.
SureVector NeoR Mammalian Selectable Marker	Industrial applications, Professional applications.
SureVector LEU2 Yeast Selectable Marker	Industrial applications, Professional applications.
SureVector LacI Repressor	Industrial applications, Professional applications.
SureVector T7-HIS6 E. coli	Industrial applications, Professional applications.

## Section 7. Handling and storage

	Promoter SureVector CMV-HIS6 Mammalian Promoter	Industrial applications, Professional applications.
	SureVector GAL1-HIS6 Yeast Promoter	Industrial applications, Professional applications.
	SureVector LacZ Control (N-term)	Industrial applications, Professional applications.
	SureVector Enzyme Mix	Industrial applications, Professional applications.
	10X SureVector Buffer	Industrial applications, Professional applications.
	dNTP Mix	Industrial applications, Professional applications.
	DpnI	Industrial applications, Professional applications.
	XL1-Blue supercompetent cells	Industrial applications, Professional applications.
	pUC 18 DNA Control Plasmid	Industrial applications, Professional applications.
	Beta Mercaptoethanol	Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: 5X SureSolution	Not applicable.
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector p15a Origin	Not applicable.
	SureVector pBR322 Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector yARS	Not applicable.
	SureVector XP2 Linker	Not applicable.
	SureVector NeoR Mammalian Selectable Marker	Not applicable.
	SureVector LEU2 Yeast Selectable Marker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector CMV-HIS6 Mammalian Promoter	Not applicable.
	SureVector GAL1-HIS6 Yeast Promoter	Not applicable.
	SureVector LacZ Control (N-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.
	XL1-Blue supercompetent cells	Not applicable.
	pUC 18 DNA Control Plasmid	Not applicable.
	Beta Mercaptoethanol	Not applicable.

## Section 8. Exposure controls/personal protection

### [8.1 Control parameters](#)

#### [Occupational exposure limits](#)

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
<b>5X SureSolution</b> Dimethyl sulfoxide	<b>AIHA WEEL (United States, 10/2011).</b> TWA: 250 ppm 8 hours.
<b>SureVector Enzyme Mix</b> Glycerol	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction
<b>10X SureVector Buffer</b> Potassium chloride 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride Ammonium sulphate Polyoxyethylene octyl phenyl ether	TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>OSHA PEL (United States, 6/2016).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust  None. None. None. None.
<b>dNTP Mix</b> 2'-Deoxyguanosine 5'-(tetrahydrogen triphosphate) 2'-Deoxyadenosine 5'-(tetrahydrogen triphosphate)	None. None.
<b>Dpnl</b> Glycerol	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust
Sodium chloride	<b>OSHA PEL (United States, 6/2016).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust  None.
<b>XL1-Blue supercompetent cells</b> Glycerol	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust
Dimethyl sulfoxide	<b>OSHA PEL (United States, 6/2016).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust  <b>AIHA WEEL (United States, 10/2011).</b> TWA: 250 ppm 8 hours.
Potassium chloride	None.
<b>Beta Mercaptoethanol</b> 2-Mercaptoethanol	<b>AIHA WEEL (United States, 10/2011).</b> <b>Absorbed through skin.</b> TWA: 0.2 ppm 8 hours.

### [8.2 Exposure controls](#)

## Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Handle as biohazard material (Biosafety level 1). 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	5X SureSolution	Liquid. [Clear.]
	SureVector AmpR Selectable Marker	Liquid.
	SureVector KanR Selectable Marker	Liquid.
	SureVector ChIR Selectable Marker	Liquid.
	SureVector pUC Origin	Liquid.
	SureVector p15a Origin	Liquid.
	SureVector pBR322 Origin	Liquid.
	SureVector XP1 Linker	Liquid.



## Section 9. Physical and chemical properties

	SureVector yARS	Liquid.
	SureVector XP2 Linker	Liquid.
	SureVector NeoR Mammalian Selectable Marker	Liquid.
	SureVector LEU2 Yeast Selectable Marker	Liquid.
	SureVector LacI Repressor	Liquid.
	SureVector T7-HIS6 E. coli Promoter	Liquid.
	SureVector CMV-HIS6 Mammalian Promoter	Liquid.
	SureVector GAL1-HIS6 Yeast Promoter	Liquid.
	SureVector LacZ Control (N-term)	Liquid.
	SureVector Enzyme Mix	Liquid.
	10X SureVector Buffer	Liquid.
	dNTP Mix	Liquid.
	DpnI	Liquid.
	XL1-Blue supercompetent cells	Liquid.
	pUC 18 DNA Control Plasmid	Liquid.
	Beta Mercaptoethanol	Liquid.
<b>Color</b>	: 5X SureSolution	Blue.
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector p15a Origin	Not available.
	SureVector pBR322 Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector yARS	Not available.
	SureVector XP2 Linker	Not available.
	SureVector NeoR Mammalian Selectable Marker	Not available.
	SureVector LEU2 Yeast Selectable Marker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector CMV-HIS6 Mammalian Promoter	Not available.
	SureVector GAL1-HIS6 Yeast Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.
	Beta Mercaptoethanol	Not available.

## Section 9. Physical and chemical properties

<b>Odor</b>	: 5X SureSolution	Odorless. [Slight]
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector p15a Origin	Not available.
	SureVector pBR322 Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector yARS	Not available.
	SureVector XP2 Linker	Not available.
	SureVector NeoR Mammalian Selectable Marker	Not available.
	SureVector LEU2 Yeast Selectable Marker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector CMV-HIS6 Mammalian Promoter	Not available.
	SureVector GAL1-HIS6 Yeast Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.
	Beta Mercaptoethanol	Not available.
<b>Odor threshold</b>	: 5X SureSolution	Not available.
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector p15a Origin	Not available.
	SureVector pBR322 Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector yARS	Not available.
	SureVector XP2 Linker	Not available.
	SureVector NeoR Mammalian Selectable Marker	Not available.
	SureVector LEU2 Yeast Selectable Marker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector CMV-HIS6 Mammalian Promoter	Not available.
	SureVector GAL1-HIS6 Yeast Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.

## Section 9. Physical and chemical properties

	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.
	Beta Mercaptoethanol	Not available.
<b>pH</b>	: 5X SureSolution	Not available.
	SureVector AmpR Selectable Marker	8
	SureVector KanR Selectable Marker	8
	SureVector ChIR Selectable Marker	8
	SureVector pUC Origin	8
	SureVector p15a Origin	8
	SureVector pBR322 Origin	8
	SureVector XP1 Linker	8
	SureVector yARS	8
	SureVector XP2 Linker	8
	SureVector NeoR Mammalian Selectable Marker	8
	SureVector LEU2 Yeast Selectable Marker	8
	SureVector LacI Repressor	8
	SureVector T7-HIS6 E. coli Promoter	8
	SureVector CMV-HIS6 Mammalian Promoter	8
	SureVector GAL1-HIS6 Yeast Promoter	8
	SureVector LacZ Control (N-term)	8
	SureVector Enzyme Mix	8.2
	10X SureVector Buffer	8.8
	dNTP Mix	7.5
	DpnI	7.5
	XL1-Blue supercompetent cells	6.4
	pUC 18 DNA Control Plasmid	7.5
	Beta Mercaptoethanol	Not available.
<b>Melting point</b>	: 5X SureSolution	18.5°C (65.3°F)
	SureVector AmpR Selectable Marker	0°C (32°F)
	SureVector KanR Selectable Marker	0°C (32°F)
	SureVector ChIR Selectable Marker	0°C (32°F)
	SureVector pUC Origin	0°C (32°F)
	SureVector p15a Origin	0°C (32°F)
	SureVector pBR322 Origin	0°C (32°F)
	SureVector XP1 Linker	0°C (32°F)
	SureVector yARS	0°C (32°F)
	SureVector XP2 Linker	0°C (32°F)
	SureVector NeoR Mammalian Selectable Marker	0°C (32°F)
	SureVector LEU2 Yeast Selectable Marker	0°C (32°F)
	SureVector LacI Repressor	0°C (32°F)
	SureVector T7-HIS6 E. coli Promoter	0°C (32°F)
	SureVector CMV-HIS6 Mammalian Promoter	0°C (32°F)

## Section 9. Physical and chemical properties

	SureVector GAL1-HIS6 Yeast Promoter	0°C (32°F)
	SureVector LacZ Control (N-term)	0°C (32°F)
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	0°C (32°F)
	Beta Mercaptoethanol	Not available.
<b>Boiling point</b>	: 5X SureSolution	189°C (372.2°F)
	SureVector AmpR Selectable Marker	100°C (212°F)
	SureVector KanR Selectable Marker	100°C (212°F)
	SureVector ChIR Selectable Marker	100°C (212°F)
	SureVector pUC Origin	100°C (212°F)
	SureVector p15a Origin	100°C (212°F)
	SureVector pBR322 Origin	100°C (212°F)
	SureVector XP1 Linker	100°C (212°F)
	SureVector yARS	100°C (212°F)
	SureVector XP2 Linker	100°C (212°F)
	SureVector NeoR Mammalian Selectable Marker	100°C (212°F)
	SureVector LEU2 Yeast Selectable Marker	100°C (212°F)
	SureVector LacI Repressor	100°C (212°F)
	SureVector T7-HIS6 E. coli Promoter	100°C (212°F)
	SureVector CMV-HIS6 Mammalian Promoter	100°C (212°F)
	SureVector GAL1-HIS6 Yeast Promoter	100°C (212°F)
	SureVector LacZ Control (N-term)	100°C (212°F)
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	100°C (212°F)
	Beta Mercaptoethanol	Not available.
<b>Flash point</b>	: <del>5X</del> SureSolution	Closed cup: 87°C (188.6°F)
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector p15a Origin	Not available.
	SureVector pBR322 Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector yARS	Not available.
	SureVector XP2 Linker	Not available.
	SureVector NeoR Mammalian Selectable Marker	Not available.
	SureVector LEU2 Yeast Selectable Marker	Not available.

## Section 9. Physical and chemical properties

	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector CMV-HIS6 Mammalian Promoter	Not available.
	SureVector GAL1-HIS6 Yeast Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.
	Beta Mercaptoethanol	Not available.
<b>Evaporation rate</b>	: 5X SureSolution	0.026 (butyl acetate = 1)
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector p15a Origin	Not available.
	SureVector pBR322 Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector yARS	Not available.
	SureVector XP2 Linker	Not available.
	SureVector NeoR Mammalian Selectable Marker	Not available.
	SureVector LEU2 Yeast Selectable Marker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector CMV-HIS6 Mammalian Promoter	Not available.
	SureVector GAL1-HIS6 Yeast Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.
	Beta Mercaptoethanol	Not available.
<b>Flammability (solid, gas)</b>	: 5X SureSolution	Not applicable.
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector p15a Origin	Not applicable.
	SureVector pBR322 Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector yARS	Not applicable.

## Section 9. Physical and chemical properties

	SureVector XP2 Linker	Not applicable.
	SureVector NeoR Mammalian Selectable Marker	Not applicable.
	SureVector LEU2 Yeast Selectable Marker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector CMV-HIS6 Mammalian Promoter	Not applicable.
	SureVector GAL1-HIS6 Yeast Promoter	Not applicable.
	SureVector LacZ Control (N-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.
	XL1-Blue supercompetent cells	Not applicable.
	pUC 18 DNA Control Plasmid	Not applicable.
	Beta Mercaptoethanol	Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: 5X SureSolution	Lower: 2.6% Upper: 28.5%
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector p15a Origin	Not available.
	SureVector pBR322 Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector yARS	Not available.
	SureVector XP2 Linker	Not available.
	SureVector NeoR Mammalian Selectable Marker	Not available.
	SureVector LEU2 Yeast Selectable Marker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector CMV-HIS6 Mammalian Promoter	Not available.
	SureVector GAL1-HIS6 Yeast Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.
	Beta Mercaptoethanol	Not available.



## Section 9. Physical and chemical properties

<b>Vapor pressure</b>	: 5X SureSolution	0.056 kPa (0.42 mm Hg) [room temperature]	
	SureVector AmpR Selectable Marker	Not available.	
	SureVector KanR Selectable Marker	Not available.	
	SureVector ChIR Selectable Marker	Not available.	
	SureVector pUC Origin	Not available.	
	SureVector p15a Origin	Not available.	
	SureVector pBR322 Origin	Not available.	
	SureVector XP1 Linker	Not available.	
	SureVector yARS	Not available.	
	SureVector XP2 Linker	Not available.	
	SureVector NeoR Mammalian Selectable Marker	Not available.	
	SureVector LEU2 Yeast Selectable Marker	Not available.	
	SureVector LacI Repressor	Not available.	
	SureVector T7-HIS6 E. coli Promoter	Not available.	
	SureVector CMV-HIS6 Mammalian Promoter	Not available.	
	SureVector GAL1-HIS6 Yeast Promoter	Not available.	
	SureVector LacZ Control (N-term)	Not available.	
	SureVector Enzyme Mix	Not available.	
	10X SureVector Buffer	Not available.	
	dNTP Mix	Not available.	
	DpnI	Not available.	
	XL1-Blue supercompetent cells	Not available.	
	pUC 18 DNA Control Plasmid	Not available.	
	Beta Mercaptoethanol	Not available.	
	<b>Vapor density</b>	: 5X SureSolution	2.7 [Air = 1]
		SureVector AmpR Selectable Marker	Not available.
		SureVector KanR Selectable Marker	Not available.
		SureVector ChIR Selectable Marker	Not available.
		SureVector pUC Origin	Not available.
		SureVector p15a Origin	Not available.
SureVector pBR322 Origin		Not available.	
SureVector XP1 Linker		Not available.	
SureVector yARS		Not available.	
SureVector XP2 Linker		Not available.	
SureVector NeoR Mammalian Selectable Marker		Not available.	
SureVector LEU2 Yeast Selectable Marker		Not available.	
SureVector LacI Repressor		Not available.	
SureVector T7-HIS6 E. coli Promoter		Not available.	
SureVector CMV-HIS6 Mammalian Promoter		Not available.	
SureVector GAL1-HIS6 Yeast Promoter		Not available.	
SureVector LacZ Control (N-term)		Not available.	
SureVector Enzyme Mix		Not available.	
10X SureVector Buffer		Not available.	

## Section 9. Physical and chemical properties

	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.
	Beta Mercaptoethanol	Not available.
<b>Relative density</b>	: 5X SureSolution	1.1
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector p15a Origin	Not available.
	SureVector pBR322 Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector yARS	Not available.
	SureVector XP2 Linker	Not available.
	SureVector NeoR Mammalian Selectable Marker	Not available.
	SureVector LEU2 Yeast Selectable Marker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector CMV-HIS6 Mammalian Promoter	Not available.
	SureVector GAL1-HIS6 Yeast Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.
	Beta Mercaptoethanol	Not available.
<b>Solubility</b>	: 5X SureSolution	Easily soluble in the following materials: cold water and hot water.
	SureVector AmpR Selectable Marker	Easily soluble in the following materials: cold water and hot water.
	SureVector KanR Selectable Marker	Easily soluble in the following materials: cold water and hot water.
	SureVector ChIR Selectable Marker	Easily soluble in the following materials: cold water and hot water.
	SureVector pUC Origin	Easily soluble in the following materials: cold water and hot water.
	SureVector p15a Origin	Easily soluble in the following materials: cold water and hot water.
	SureVector pBR322 Origin	Easily soluble in the following materials: cold water and hot water.
	SureVector XP1 Linker	Easily soluble in the following materials: cold water and hot water.
	SureVector yARS	Easily soluble in the following materials: cold water and hot water.
	SureVector XP2 Linker	Easily soluble in the following materials: cold water and hot water.
	SureVector NeoR Mammalian Selectable Marker	Easily soluble in the following materials: cold water and hot water.

## Section 9. Physical and chemical properties

SureVector LEU2 Yeast Selectable Marker	Easily soluble in the following materials: cold water and hot water.
SureVector LacI Repressor	Easily soluble in the following materials: cold water and hot water.
SureVector T7-HIS6 E. coli Promoter	Easily soluble in the following materials: cold water and hot water.
SureVector CMV-HIS6 Mammalian Promoter	Easily soluble in the following materials: cold water and hot water.
SureVector GAL1-HIS6 Yeast Promoter	Easily soluble in the following materials: cold water and hot water.
SureVector LacZ Control (N-term)	Easily soluble in the following materials: cold water and hot water.
SureVector Enzyme Mix	Soluble in the following materials: cold water and hot water.
10X SureVector Buffer	Easily soluble in the following materials: cold water and hot water.
dNTP Mix	Easily soluble in the following materials: cold water and hot water.
DpnI	Soluble in the following materials: cold water and hot water.
XL1-Blue supercompetent cells	Soluble in the following materials: cold water and hot water.
pUC 18 DNA Control Plasmid	Easily soluble in the following materials: cold water and hot water.
Beta Mercaptoethanol	Easily soluble in the following materials: cold water and hot water.
5X SureSolution	-1.35
SureVector AmpR Selectable Marker	Not available.
SureVector KanR Selectable Marker	Not available.
SureVector ChIR Selectable Marker	Not available.
SureVector pUC Origin	Not available.
SureVector p15a Origin	Not available.
SureVector pBR322 Origin	Not available.
SureVector XP1 Linker	Not available.
SureVector yARS	Not available.
SureVector XP2 Linker	Not available.
SureVector NeoR Mammalian Selectable Marker	Not available.
SureVector LEU2 Yeast Selectable Marker	Not available.
SureVector LacI Repressor	Not available.
SureVector T7-HIS6 E. coli Promoter	Not available.
SureVector CMV-HIS6 Mammalian Promoter	Not available.
SureVector GAL1-HIS6 Yeast Promoter	Not available.
SureVector LacZ Control (N-term)	Not available.
SureVector Enzyme Mix	Not available.
10X SureVector Buffer	Not available.
dNTP Mix	Not available.
DpnI	Not available.
XL1-Blue supercompetent cells	Not available.
pUC 18 DNA Control Plasmid	Not available.
Beta Mercaptoethanol	Not available.

**Partition coefficient: n-octanol/water**

5X SureSolution	-1.35
SureVector AmpR Selectable Marker	Not available.
SureVector KanR Selectable Marker	Not available.
SureVector ChIR Selectable Marker	Not available.
SureVector pUC Origin	Not available.
SureVector p15a Origin	Not available.
SureVector pBR322 Origin	Not available.
SureVector XP1 Linker	Not available.
SureVector yARS	Not available.
SureVector XP2 Linker	Not available.
SureVector NeoR Mammalian Selectable Marker	Not available.
SureVector LEU2 Yeast Selectable Marker	Not available.
SureVector LacI Repressor	Not available.
SureVector T7-HIS6 E. coli Promoter	Not available.
SureVector CMV-HIS6 Mammalian Promoter	Not available.
SureVector GAL1-HIS6 Yeast Promoter	Not available.
SureVector LacZ Control (N-term)	Not available.
SureVector Enzyme Mix	Not available.
10X SureVector Buffer	Not available.
dNTP Mix	Not available.
DpnI	Not available.
XL1-Blue supercompetent cells	Not available.
pUC 18 DNA Control Plasmid	Not available.
Beta Mercaptoethanol	Not available.

## Section 9. Physical and chemical properties

<b>Auto-ignition temperature</b>	: 5X SureSolution	300 to 302°C (572 to 575.6°F)	
	SureVector AmpR Selectable Marker	Not available.	
	SureVector KanR Selectable Marker	Not available.	
	SureVector ChIR Selectable Marker	Not available.	
	SureVector pUC Origin	Not available.	
	SureVector p15a Origin	Not available.	
	SureVector pBR322 Origin	Not available.	
	SureVector XP1 Linker	Not available.	
	SureVector yARS	Not available.	
	SureVector XP2 Linker	Not available.	
	SureVector NeoR Mammalian Selectable Marker	Not available.	
	SureVector LEU2 Yeast Selectable Marker	Not available.	
	SureVector LacI Repressor	Not available.	
	SureVector T7-HIS6 E. coli Promoter	Not available.	
	SureVector CMV-HIS6 Mammalian Promoter	Not available.	
	SureVector GAL1-HIS6 Yeast Promoter	Not available.	
	SureVector LacZ Control (N-term)	Not available.	
	SureVector Enzyme Mix	Not available.	
	10X SureVector Buffer	Not available.	
	dNTP Mix	Not available.	
	DpnI	Not available.	
	XL1-Blue supercompetent cells	Not available.	
	pUC 18 DNA Control Plasmid	Not available.	
	Beta Mercaptoethanol	Not available.	
	<b>Decomposition temperature</b>	: 5X SureSolution	140 to 189°C (284 to 372.2°F)
		SureVector AmpR Selectable Marker	Not available.
		SureVector KanR Selectable Marker	Not available.
		SureVector ChIR Selectable Marker	Not available.
		SureVector pUC Origin	Not available.
		SureVector p15a Origin	Not available.
SureVector pBR322 Origin		Not available.	
SureVector XP1 Linker		Not available.	
SureVector yARS		Not available.	
SureVector XP2 Linker		Not available.	
SureVector NeoR Mammalian Selectable Marker		Not available.	
SureVector LEU2 Yeast Selectable Marker		Not available.	
SureVector LacI Repressor		Not available.	
SureVector T7-HIS6 E. coli Promoter		Not available.	
SureVector CMV-HIS6 Mammalian Promoter		Not available.	
SureVector GAL1-HIS6 Yeast Promoter		Not available.	
SureVector LacZ Control (N-term)		Not available.	
SureVector Enzyme Mix		Not available.	
10X SureVector Buffer		Not available.	

## Section 9. Physical and chemical properties

	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.
	Beta Mercaptoethanol	Not available.
<b>Viscosity</b>	: 5X SureSolution	Dynamic (room temperature): 2.14 mPa·s (2.14 cP)
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector p15a Origin	Not available.
	SureVector pBR322 Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector yARS	Not available.
	SureVector XP2 Linker	Not available.
	SureVector NeoR Mammalian Selectable Marker	Not available.
	SureVector LEU2 Yeast Selectable Marker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector CMV-HIS6 Mammalian Promoter	Not available.
	SureVector GAL1-HIS6 Yeast Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
	XL1-Blue supercompetent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.
	Beta Mercaptoethanol	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: 5X SureSolution	No specific test data related to reactivity available for this product or its ingredients.
	SureVector AmpR Selectable Marker	No specific test data related to reactivity available for this product or its ingredients.
	SureVector KanR Selectable Marker	No specific test data related to reactivity available for this product or its ingredients.
	SureVector ChIR Selectable Marker	No specific test data related to reactivity available for this product or its ingredients.
	SureVector pUC Origin	No specific test data related to reactivity available for this product or its ingredients.
	SureVector p15a Origin	No specific test data related to reactivity available for this product or its ingredients.
	SureVector pBR322 Origin	No specific test data related to reactivity available for this product or its ingredients.
	SureVector XP1 Linker	No specific test data related to reactivity available for this product or its ingredients.
	SureVector yARS	No specific test data related to reactivity available for this product or its ingredients.
	SureVector XP2 Linker	No specific test data related to reactivity available

## Section 10. Stability and reactivity

SureVector NeoR Mammalian Selectable Marker	for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
SureVector LEU2 Yeast Selectable Marker	No specific test data related to reactivity available for this product or its ingredients.
SureVector LacI Repressor	No specific test data related to reactivity available for this product or its ingredients.
SureVector T7-HIS6 E. coli Promoter	No specific test data related to reactivity available for this product or its ingredients.
SureVector CMV-HIS6 Mammalian Promoter	No specific test data related to reactivity available for this product or its ingredients.
SureVector GAL1-HIS6 Yeast Promoter	No specific test data related to reactivity available for this product or its ingredients.
SureVector LacZ Control (N-term)	No specific test data related to reactivity available for this product or its ingredients.
SureVector Enzyme Mix	No specific test data related to reactivity available for this product or its ingredients.
10X SureVector Buffer	No specific test data related to reactivity available for this product or its ingredients.
dNTP Mix	No specific test data related to reactivity available for this product or its ingredients.
DpnI	No specific test data related to reactivity available for this product or its ingredients.
XL1-Blue supercompetent cells	No specific test data related to reactivity available for this product or its ingredients.
pUC 18 DNA Control Plasmid	No specific test data related to reactivity available for this product or its ingredients.
Beta Mercaptoethanol	No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability

: 5X SureSolution	The product is stable.
SureVector AmpR Selectable Marker	The product is stable.
SureVector KanR Selectable Marker	The product is stable.
SureVector ChIR Selectable Marker	The product is stable.
SureVector pUC Origin	The product is stable.
SureVector p15a Origin	The product is stable.
SureVector pBR322 Origin	The product is stable.
SureVector XP1 Linker	The product is stable.
SureVector yARS	The product is stable.
SureVector XP2 Linker	The product is stable.
SureVector NeoR Mammalian Selectable Marker	The product is stable.
SureVector LEU2 Yeast Selectable Marker	The product is stable.
SureVector LacI Repressor	The product is stable.
SureVector T7-HIS6 E. coli Promoter	The product is stable.
SureVector CMV-HIS6 Mammalian Promoter	The product is stable.
SureVector GAL1-HIS6 Yeast Promoter	The product is stable.
SureVector LacZ Control (N-term)	The product is stable.
SureVector Enzyme Mix	The product is stable.
10X SureVector Buffer	The product is stable.
dNTP Mix	The product is stable.
DpnI	The product is stable.



## Section 10. Stability and reactivity

	XL1-Blue supercompetent cells	The product is stable.
	pUC 18 DNA Control Plasmid	The product is stable.
	Beta Mercaptoethanol	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: 5X SureSolution	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector AmpR Selectable Marker	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector KanR Selectable Marker	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector ChIR Selectable Marker	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector pUC Origin	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector p15a Origin	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector pBR322 Origin	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector XP1 Linker	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector yARS	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector XP2 Linker	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector NeoR Mammalian Selectable Marker	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector LEU2 Yeast Selectable Marker	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector LacI Repressor	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector T7-HIS6 E. coli Promoter	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector CMV-HIS6 Mammalian Promoter	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector GAL1-HIS6 Yeast Promoter	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector LacZ Control (N-term)	Under normal conditions of storage and use, hazardous reactions will not occur.
	SureVector Enzyme Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	10X SureVector Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	dNTP Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	DpnI	Under normal conditions of storage and use, hazardous reactions will not occur.
	XL1-Blue supercompetent cells	Under normal conditions of storage and use, hazardous reactions will not occur.
	pUC 18 DNA Control Plasmid	Under normal conditions of storage and use, hazardous reactions will not occur.
	Beta Mercaptoethanol	Under normal conditions of storage and use, hazardous reactions will not occur.

## Section 10. Stability and reactivity

<b>10.4 Conditions to avoid</b>	: 5X SureSolution	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector p15a Origin	No specific data.
	SureVector pBR322 Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector yARS	No specific data.
	SureVector XP2 Linker	No specific data.
	SureVector NeoR Mammalian Selectable Marker	No specific data.
	SureVector LEU2 Yeast Selectable Marker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector CMV-HIS6 Mammalian Promoter	No specific data.
	SureVector GAL1-HIS6 Yeast Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.
	XL1-Blue supercompetent cells	No specific data.
	pUC 18 DNA Control Plasmid	No specific data.
	Beta Mercaptoethanol	No specific data.
<b>10.5 Incompatible materials</b>	: 5X SureSolution	Reactive or incompatible with the following materials: oxidizing materials
	SureVector AmpR Selectable Marker	May react or be incompatible with oxidizing materials.
	SureVector KanR Selectable Marker	May react or be incompatible with oxidizing materials.
	SureVector ChIR Selectable Marker	May react or be incompatible with oxidizing materials.
	SureVector pUC Origin	May react or be incompatible with oxidizing materials.
	SureVector p15a Origin	May react or be incompatible with oxidizing materials.
	SureVector pBR322 Origin	May react or be incompatible with oxidizing materials.
	SureVector XP1 Linker	May react or be incompatible with oxidizing materials.
	SureVector yARS	May react or be incompatible with oxidizing materials.
	SureVector XP2 Linker	May react or be incompatible with oxidizing materials.
	SureVector NeoR Mammalian	May react or be incompatible with oxidizing

## Section 10. Stability and reactivity

Selectable Marker	materials.
SureVector LEU2 Yeast	May react or be incompatible with oxidizing
Selectable Marker	materials.
SureVector LacI Repressor	May react or be incompatible with oxidizing
	materials.
SureVector T7-HIS6 E. coli	May react or be incompatible with oxidizing
Promoter	materials.
SureVector CMV-HIS6	May react or be incompatible with oxidizing
Mammalian Promoter	materials.
SureVector GAL1-HIS6 Yeast	May react or be incompatible with oxidizing
Promoter	materials.
SureVector LacZ Control (N-term)	May react or be incompatible with oxidizing
	materials.
SureVector Enzyme Mix	May react or be incompatible with oxidizing
	materials.
10X SureVector Buffer	May react or be incompatible with oxidizing
	materials.
dNTP Mix	May react or be incompatible with oxidizing
	materials.
DpnI	May react or be incompatible with oxidizing
	materials.
XL1-Blue supercompetent cells	May react or be incompatible with oxidizing
	materials.
pUC 18 DNA Control Plasmid	May react or be incompatible with oxidizing
	materials.
Beta Mercaptoethanol	May react or be incompatible with oxidizing
	materials.

### 10.6 Hazardous decomposition products

: 5X SureSolution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector AmpR Selectable Marker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector KanR Selectable Marker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector ChIR Selectable Marker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector pUC Origin	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector p15a Origin	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector pBR322 Origin	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector XP1 Linker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector yARS	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector XP2 Linker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector NeoR Mammalian	Under normal conditions of storage and use,

## Section 10. Stability and reactivity

Selectable Marker	hazardous decomposition products should not be produced.
SureVector LEU2 Yeast Selectable Marker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector LacI Repressor	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector T7-HIS6 E. coli Promoter	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector CMV-HIS6 Mammalian Promoter	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector GAL1-HIS6 Yeast Promoter	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector LacZ Control (N-term)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector Enzyme Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
10X SureVector Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
dNTP Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
DpnI	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
XL1-Blue supercompetent cells	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
pUC 18 DNA Control Plasmid	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Beta Mercaptoethanol	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>5X SureSolution</b> Dimethyl sulfoxide	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-
<b>SureVector Enzyme Mix</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-
<b>10X SureVector Buffer</b> Potassium chloride Ammonium sulphate Polyoxyethylene octyl phenyl	LD50 Oral	Rat	2600 mg/kg	-
	LD50 Oral	Rat	2840 mg/kg	-
	LD50 Oral	Rat	1800 mg/kg	-

## Section 11. Toxicological information

ether				
<b>Dpnl</b>				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
<b>XL1-Blue supercompetent cells</b>				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Dimethyl sulfoxide	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-
Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-
<b>Beta Mercaptoethanol</b>				
2-Mercaptoethanol	LD50 Dermal	Rabbit	200 mg/kg	-
	LD50 Oral	Rat	244 mg/kg	-

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>5X SureSolution</b>					
Dimethyl sulfoxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	100 milligrams	-
<b>SureVector Enzyme Mix</b>					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
<b>10X SureVector Buffer</b>					
Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Polyoxyethylene octyl phenyl ether	Eyes - Moderate irritant	Rabbit	-	24 hours 10 microliters	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters	-
<b>Dpnl</b>					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
<b>XL1-Blue supercompetent cells</b>					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

## Section 11. Toxicological information

Dimethyl sulfoxide	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	100 milligrams	-
Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	<b>Beta Mercaptoethanol</b> 2-Mercaptoethanol	Rabbit	-	2 milligrams	-

### Sensitization

Not available.

### Conclusion/Summary

**Skin** :  May cause skin sensitization.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
<b>10X SureVector Buffer</b> 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation
<b>Beta Mercaptoethanol</b> 2-Mercaptoethanol	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

: 5X SureSolution  
 SureVector AmpR Selectable Marker  
 SureVector KanR Selectable Marker  
 SureVector ChIR Selectable

Routes of entry anticipated: Oral, Dermal, Inhalation.  
 Not available.  
 Not available.  
 Not available.



## Section 11. Toxicological information

Marker	
SureVector pUC Origin	Not available.
SureVector p15a Origin	Not available.
SureVector pBR322 Origin	Not available.
SureVector XP1 Linker	Not available.
SureVector yARS	Not available.
SureVector XP2 Linker	Not available.
SureVector NeoR Mammalian Selectable Marker	Not available.
SureVector LEU2 Yeast Selectable Marker	Not available.
SureVector LacI Repressor	Not available.
SureVector T7-HIS6 E. coli Promoter	Not available.
SureVector CMV-HIS6 Mammalian Promoter	Not available.
SureVector GAL1-HIS6 Yeast Promoter	Not available.
SureVector LacZ Control (N-term)	Not available.
SureVector Enzyme Mix	Routes of entry anticipated: Oral, Dermal, Inhalation.
10X SureVector Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
dNTP Mix	Not available.
DpnI	Routes of entry anticipated: Oral, Dermal, Inhalation.
XL1-Blue supercompetent cells	Routes of entry anticipated: Oral, Dermal, Inhalation.
pUC 18 DNA Control Plasmid	Not available.
Beta Mercaptoethanol	Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

#### **Eye contact**

: 5X SureSolution	Causes eye irritation.
SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
SureVector KanR Selectable Marker	No known significant effects or critical hazards.
SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
SureVector pUC Origin	No known significant effects or critical hazards.
SureVector p15a Origin	No known significant effects or critical hazards.
SureVector pBR322 Origin	No known significant effects or critical hazards.
SureVector XP1 Linker	No known significant effects or critical hazards.
SureVector yARS	No known significant effects or critical hazards.
SureVector XP2 Linker	No known significant effects or critical hazards.
SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
SureVector LacI Repressor	No known significant effects or critical hazards.
SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
SureVector Enzyme Mix	Causes eye irritation.
10X SureVector Buffer	Causes serious eye irritation.

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	dNTP Mix	No known significant effects or critical hazards.
	DpnI	Causes serious eye irritation.
	XL1-Blue supercompetent cells	Causes eye irritation.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	Causes serious eye damage.
<b>Inhalation</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	Harmful if inhaled.
<b>Skin contact</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.

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	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
<b>Ingestion</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: 5X SureSolution	Adverse symptoms may include the following: irritation watering redness
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector p15a Origin	No specific data.
	SureVector pBR322 Origin	No specific data.

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	SureVector XP1 Linker	No specific data.
	SureVector yARS	No specific data.
	SureVector XP2 Linker	No specific data.
	SureVector NeoR Mammalian Selectable Marker	No specific data.
	SureVector LEU2 Yeast Selectable Marker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector CMV-HIS6 Mammalian Promoter	No specific data.
	SureVector GAL1-HIS6 Yeast Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	Adverse symptoms may include the following: irritation watering redness
	10X SureVector Buffer	Adverse symptoms may include the following: pain or irritation watering redness
	dNTP Mix	No specific data.
	DpnI	Adverse symptoms may include the following: pain or irritation watering redness
	XL1-Blue supercompetent cells	Adverse symptoms may include the following: irritation watering redness
	pUC 18 DNA Control Plasmid	No specific data.
	Beta Mercaptoethanol	Adverse symptoms may include the following: pain watering redness
<b>Inhalation</b>	: 5X SureSolution	No specific data.
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector p15a Origin	No specific data.
	SureVector pBR322 Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector yARS	No specific data.
	SureVector XP2 Linker	No specific data.
	SureVector NeoR Mammalian Selectable Marker	No specific data.
	SureVector LEU2 Yeast Selectable Marker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector CMV-HIS6 Mammalian Promoter	No specific data.

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	SureVector GAL1-HIS6 Yeast Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.
	XL1-Blue supercompetent cells	No specific data.
	pUC 18 DNA Control Plasmid	No specific data.
	Beta Mercaptoethanol	No specific data.
<b>Skin contact</b>	: 5X SureSolution	No specific data.
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector p15a Origin	No specific data.
	SureVector pBR322 Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector yARS	No specific data.
	SureVector XP2 Linker	No specific data.
	SureVector NeoR Mammalian Selectable Marker	No specific data.
	SureVector LEU2 Yeast Selectable Marker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector CMV-HIS6 Mammalian Promoter	No specific data.
	SureVector GAL1-HIS6 Yeast Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.
	XL1-Blue supercompetent cells	No specific data.
	pUC 18 DNA Control Plasmid	No specific data.
	Beta Mercaptoethanol	Adverse symptoms may include the following: pain or irritation redness blistering may occur
<b>Ingestion</b>	: 5X SureSolution	No specific data.
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector p15a Origin	No specific data.
	SureVector pBR322 Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector yARS	No specific data.
	SureVector XP2 Linker	No specific data.
	SureVector NeoR Mammalian	No specific data.

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Selectable Marker SureVector LEU2 Yeast Selectable Marker	No specific data.
SureVector LacI Repressor SureVector T7-HIS6 E. coli Promoter	No specific data.
SureVector CMV-HIS6 Mammalian Promoter	No specific data.
SureVector GAL1-HIS6 Yeast Promoter	No specific data.
SureVector LacZ Control (N-term)	No specific data.
SureVector Enzyme Mix	No specific data.
10X SureVector Buffer	No specific data.
dNTP Mix	No specific data.
DpnI	No specific data.
XL1-Blue supercompetent cells	No specific data.
pUC 18 DNA Control Plasmid	No specific data.
Beta Mercaptoethanol	Adverse symptoms may include the following: stomach pains

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

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

<b>General</b>	5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.



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	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	No known significant effects or critical hazards.
<b>Mutagenicity</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli	No known significant effects or critical hazards.

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	Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	No known significant effects or critical hazards.
<b>Teratogenicity</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6 Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	No known significant effects or critical hazards.
<b>Developmental effects</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian	No known significant effects or critical hazards.

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	Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast	No known significant effects or critical hazards.
	Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli	No known significant effects or critical hazards.
	Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6	No known significant effects or critical hazards.
	Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast	No known significant effects or critical hazards.
	Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	No known significant effects or critical hazards.
<b>Fertility effects</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable	No known significant effects or critical hazards.
	Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable	No known significant effects or critical hazards.
	Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable	No known significant effects or critical hazards.
	Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector p15a Origin	No known significant effects or critical hazards.
	SureVector pBR322 Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector yARS	No known significant effects or critical hazards.
	SureVector XP2 Linker	No known significant effects or critical hazards.
	SureVector NeoR Mammalian	No known significant effects or critical hazards.
	Selectable Marker	No known significant effects or critical hazards.
	SureVector LEU2 Yeast	No known significant effects or critical hazards.
	Selectable Marker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli	No known significant effects or critical hazards.
	Promoter	No known significant effects or critical hazards.
	SureVector CMV-HIS6	No known significant effects or critical hazards.
	Mammalian Promoter	No known significant effects or critical hazards.
	SureVector GAL1-HIS6 Yeast	No known significant effects or critical hazards.
	Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
	XL1-Blue supercompetent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	Beta Mercaptoethanol	No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

## Section 11. Toxicological information

Route	ATE value
<b>10X SureVector Buffer</b> Oral	41044.5 mg/kg
<b>Dpnl</b> Oral	128314.8 mg/kg
<b>XL1-Blue supercompetent cells</b> Oral	136842.1 mg/kg
<b>Beta Mercaptoethanol</b> Oral Dermal Inhalation (vapors)	2440 mg/kg 2000 mg/kg 20 mg/l

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>5X SureSolution</b> Dimethyl sulfoxide	Acute LC50 25000 ppm Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 34000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 100 µl/L Marine water	Algae - Ulva lactuca	72 hours
<b>SureVector Enzyme Mix</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
<b>10X SureVector Buffer</b> Potassium chloride	Acute EC50 1337000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
Ammonium sulphate	Acute EC50 141460 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 12.92 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
	Acute LC50 880000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 2.6 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Young	48 hours
	Acute LC50 14000 to 15000 µg/l Fresh water	Daphnia - Daphnia magna - Young	48 hours
	Acute LC50 68 µg/l Fresh water	Fish - Oncorhynchus gorbuscha - Alevin	96 hours
	Chronic NOEC 7.5 mg/l Marine water	Algae - Phaeodactylum tricornutum - Exponential growth phase	96 hours
Polyoxyethylene octyl phenyl ether	Chronic NOEC 143 µg/l Marine water	Fish - Salmo salar - Post-smolt	5 weeks
	Acute LC50 5.85 mg/l Fresh water	Crustaceans - Ceriodaphnia rigaudi - Neonate	48 hours
	Acute LC50 11.2 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
<b>Dpnl</b> Glycerol Sodium chloride	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours

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<b>XL1-Blue supercompetent cells</b>	Acute EC50 28.85 mg/dm <sup>3</sup> Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 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
	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Acute LC50 25000 ppm Fresh water	Daphnia - Daphnia magna - Neonate	48 hours	
Potassium chloride	Acute LC50 34000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 100 µl/L Marine water	Algae - Ulva lactuca	72 hours
	Acute EC50 1337000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 141460 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 12.92 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
Acute LC50 880000 µg/l Fresh water	Fish - Pimephales promelas	96 hours	

### 12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>10X SureVector Buffer</b>			
Potassium chloride	-	-	Readily
Ammonium sulphate	-	-	Readily
Polyoxyethylene octyl phenyl ether	-	-	Readily
<b>XL1-Blue supercompetent cells</b>			
Potassium chloride	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>5X SureSolution</b>			
Dimethyl sulfoxide	-1.35	3.16	low
<b>SureVector Enzyme Mix</b>			
Glycerol	-1.76	-	low
<b>10X SureVector Buffer</b>			
Potassium chloride	-0.46	-	low
Ammonium sulphate	-5.1	-	low
Polyoxyethylene octyl phenyl ether	4.86	-	high
<b>Dpnl</b>			

## Section 12. Ecological information

Glycerol	-1.76	-	low
<b>XL1-Blue supercompetent cells</b>			
Glycerol	-1.76	-	low
Dimethyl sulfoxide	-1.35	3.16	low
Potassium chloride	-0.46	-	low
<b>Beta Mercaptoethanol</b>			
2-Mercaptoethanol	-0.056	-	low

### 12.4 Mobility in soil

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

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

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

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

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

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

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

## Section 14. Transport information

### Regulatory information

**DOT / IMDG / IATA** : Not regulated.



## Section 15. Regulatory information

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

**U.S. Federal regulations** : **TSCA 8(a) PAIR**: Polyoxyethylene octyl phenyl ether; Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-

**United States inventory (TSCA 8b)**: All components are listed or exempted.

**Clean Water Act (CWA) 311**: Edetic acid

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

#### SARA 302/304

##### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

#### SARA 311/312

**Classification** : Fire hazard  
Immediate (acute) health hazard

##### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
<b>5X SureSolution</b> Dimethyl sulfoxide	100	Yes.	No.	No.	Yes.	No.
<b>SureVector Enzyme Mix</b> Glycerol	≥50 - ≤75	No.	No.	No.	Yes.	No.
<b>10X SureVector Buffer</b> Potassium chloride	≤5	No.	No.	No.	Yes.	No.
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	≤5	No.	No.	No.	Yes.	No.
Ammonium sulphate	≤3	No.	No.	No.	Yes.	No.
Polyoxyethylene octyl phenyl ether	≤2.3	No.	No.	No.	Yes.	No.
<b>dNTP Mix</b> 2'-Deoxyguanosine 5'-(tetrahydrogen triphosphate)	≤3	No.	No.	No.	Yes.	No.
2'-Deoxyadenosine 5'-(tetrahydrogen triphosphate)	≤3	No.	No.	No.	Yes.	No.
<b>Dpnl</b> Glycerol	≥50 - ≤75	No.	No.	No.	Yes.	No.
Sodium chloride	≤3	No.	No.	No.	Yes.	No.

## Section 15. Regulatory information

<b>XL1-Blue supercompetent cells</b>						
Glycerol	≥10 - ≤25	No.	No.	No.	Yes.	No.
Dimethyl sulfoxide	≤10	Yes.	No.	No.	Yes.	No.
Potassium chloride	≤3	No.	No.	No.	Yes.	No.
<b>Beta Mercaptoethanol</b>						
2-Mercaptoethanol	≤12	Yes.	No.	No.	Yes.	No.

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	<b>10X SureVector Buffer</b> Ammonium sulphate	7783-20-2	≤3
<b>Supplier notification</b>	<b>10X SureVector Buffer</b> Ammonium sulphate	7783-20-2	≤3

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

### State regulations

- Massachusetts** : The following components are listed: GLYCERINE MIST
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: DIMETHYL SULFOXIDE; METHANE, SULFINYLBIIS-; GLYCERIN; 1,2,3-PROPANETRIOL
- Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL
- California Prop. 65**

No products were found.

### 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 inventory** :  Not determined.
- China** : Not determined.
- Europe** : All components are listed or exempted.
- Japan** :  **Japan inventory (ENCS)**: Not determined.  
**Japan inventory (ISHL)**: Not determined.
- Malaysia** :  Not determined.
- New Zealand** :  Not determined.
- Philippines** : Not determined.

## Section 15. Regulatory information

<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Turkey</b>	: Not determined.

## Section 16. Other information

### History

<b>Date of issue</b>	: 04/25/2017
<b>Date of previous issue</b>	: 10/18/2016.
<b>Version</b>	: 3

✔ Indicates information that has changed from previously issued version.

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