

# SAFETY DATA SHEET

SureVector E. coli Selection Kit, Part Number G7518A

## Section 1. Identification

### 1.1 Product identifier

<b>Product name</b>	: SureVector E. coli Selection Kit, Part Number G7518A	
<b>Part no. (chemical kit)</b>	: G7518A	
<b>Part no.</b>	: 5X SureSolution	5190-8625
	SureVector AmpR Selectable Marker	5190-8807
	SureVector KanR Selectable Marker	5190-8808
	SureVector ChIR Selectable Marker	5190-8809
	SureVector pUC Origin	5190-8810
	SureVector XP1 Linker	5190-8811
	SureVector LacI Repressor	5190-8812
	SureVector T7-HIS6 E. coli Promoter	5190-8813
	SureVector LacZ Control (N-term)	5190-8814
	SureVector Enzyme Mix	5190-8621
	10X SureVector Buffer	5190-8622
	dNTP Mix	200518-56
	DpnI	5190-8624
<b>Validation date</b>	: 4/5/2022	

### 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	0.01 ml (5 reactions)
	SureVector KanR Selectable Marker	0.01 ml (5 reactions)
	SureVector ChIR Selectable Marker	0.01 ml (5 reactions)
	SureVector pUC Origin	0.01 ml (5 reactions)
	SureVector XP1 Linker	0.01 ml (5 reactions)
	SureVector LacI Repressor	0.01 ml (5 reactions)
	SureVector T7-HIS6 E. coli Promoter	0.01 ml (5 reactions)
	SureVector LacZ Control (N-term)	0.01 ml (5 reactions)
	SureVector Enzyme Mix	0.015 ml (15 reactions)
	10X SureVector Buffer	0.03 ml (15 reactions)
	dNTP Mix	0.03 ml
	DpnI	0.03 ml (15 reactions)

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

<b>Supplier/Manufacturer</b>	: Agilent Technologies, Inc. 5301 Stevens Creek Blvd Santa Clara, CA 95051, USA 800-227-9770
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### 1.4 Emergency telephone number

<b>In case of emergency</b>	: CHEMTREC®: 1-800-424-9300
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## 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).
	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 XP1 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 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 <i>E. coli</i> 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.
	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.

## Section 2. Hazards identification

This SDS should be retained and available for employees and other users of this product.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Dpnl

### 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

### 2.2 GHS label elements

#### **Hazard pictograms**

: 10X SureVector Buffer



Dpnl



#### **Signal word**

: 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 XP1 Linker	No signal word.
SureVector LacI Repressor	No signal word.
SureVector T7-HIS6 E. coli 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.
Dpnl	Warning

#### **Hazard statements**

: 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 XP1 Linker	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.

## Section 2. Hazards identification

	Promoter	
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	H320 - Causes eye irritation.
	10X SureVector Buffer	H319 - Causes serious eye irritation.
	dNTP Mix	No known significant effects or critical hazards.
	Dpnl	H319 - Causes serious eye irritation.
<b>Precautionary statements</b>		
<b>Prevention</b>	: <del>5X</del> SureSolution	P210 - Keep away from flames and hot surfaces. No smoking. 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 XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector LacZ Control (N-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	P280 - Wear eye or face protection.
	dNTP Mix	Not applicable.
	Dpnl	P280 - Wear eye or face protection.
<b>Response</b>	: <del>5X</del> 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 advice or attention. 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 XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli 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 advice or 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 advice or attention.
	dNTP Mix	Not applicable.
	Dpnl	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

## Section 2. Hazards identification

		rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
<b>Storage</b>	: 5X SureSolution	P403 + P235 - Store in a well-ventilated place. Keep cool.
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli 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.
<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 XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli 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.
<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 XP1 Linker	None known.
	SureVector LacI Repressor	None known.
	SureVector T7-HIS6 E. coli 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.

### 2.3 Other hazards

## Section 2. Hazards identification

<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 XP1 Linker	None known.
	SureVector LacI Repressor	None known.
	SureVector T7-HIS6 E. coli 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.

## 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 XP1 Linker	Mixture
	SureVector LacI Repressor	Mixture
	SureVector T7-HIS6 E. coli Promoter	Mixture
	SureVector LacZ Control (N-term)	Mixture
	SureVector Enzyme Mix	Mixture
	10X SureVector Buffer	Mixture
	dNTP Mix	Mixture
	DpnI	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
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	<0.25	9036-19-5
<b>10X SureVector Buffer</b> Potassium chloride	≤5	7447-40-7
Ammonium sulphate	≤3	7783-20-2
Polyoxyethylene octyl phenyl ether	<2.5	9002-93-1
<b>DpnI</b> Glycerol	≥50 - ≤75	56-81-5
Sodium chloride	≤3	7647-14-5

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

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

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

#### Eye contact

: 5X SureSolution

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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

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. Check for and remove any contact lenses. Get medical attention if irritation occurs.

SureVector pUC 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 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 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. Get medical attention if irritation occurs.

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. If irritation persists, 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.

DpnI

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.

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.

## Section 4. First aid measures

<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 XP1 Linker	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 <i>E. coli</i> 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

## Section 4. First aid measures

of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

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.

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

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Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

### Skin contact

: 5X SureSolution

SureVector AmpR Selectable Marker

SureVector KanR Selectable Marker

SureVector ChIR Selectable Marker

SureVector pUC Origin

SureVector XP1 Linker

SureVector LacI Repressor

SureVector T7-HIS6 *E. coli* Promoter


SureVector LacZ Control (N-term)

SureVector Enzyme Mix

10X SureVector Buffer

dNTP Mix

## Section 4. First aid measures

	Dpnl	medical attention if symptoms occur. 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.
<b>Ingestion</b>	:  SureSolution	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	SureVector AmpR Selectable Marker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureVector KanR Selectable Marker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureVector ChIR Selectable Marker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureVector pUC Origin	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureVector XP1 Linker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureVector LacI Repressor	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureVector T7-HIS6 <i>E. coli</i> Promoter	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical

## Section 4. First aid measures

	personnel. Get medical attention if symptoms occur.
SureVector LacZ Control (N-term)	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector Enzyme Mix	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
10X SureVector Buffer	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if 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.
dNTP Mix	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Dpnl	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### [4.2 Most important symptoms/effects, acute and delayed](#)

#### [Potential acute health effects](#)

## Section 4. First aid measures

<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 XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 <i>E. coli</i> 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.
	Dpnl	Causes serious eye irritation.
<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 XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 <i>E. coli</i> 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.
	Dpnl	No known significant effects or critical hazards.
<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 XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 <i>E. coli</i> 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.
	Dpnl	No known significant effects or critical hazards.
<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.

## Section 4. First aid measures

SureVector XP1 Linker	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 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.

### 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 XP1 Linker	No specific data.
SureVector LacI Repressor	No specific data.
SureVector T7-HIS6 E. coli 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

#### Inhalation

: 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 XP1 Linker	No specific data.
SureVector LacI Repressor	No specific data.
SureVector T7-HIS6 E. coli 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.

## Section 4. First aid measures

<b>Skin contact</b>	<b>:</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 XP1 Linker	No specific data.	
		SureVector LacI Repressor	No specific data.	
		SureVector T7-HIS6 E. coli 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.	
	<b>Ingestion</b>	<b>:</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 XP1 Linker	No specific data.	
		SureVector LacI Repressor	No specific data.	
		SureVector T7-HIS6 E. coli 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.	

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

<b>Notes to physician</b>	<b>:</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 XP1 Linker	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

## Section 4. First aid measures

	SureVector LacZ Control (N-term)	ingested or inhaled. 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	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	DpnI	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: 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 XP1 Linker	No specific treatment.
	SureVector LacI Repressor	No specific treatment.
	SureVector T7-HIS6 <i>E. coli</i> 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.
<b>Protection of first-aiders</b>	: 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.
	SureVector XP1 Linker	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 <i>E. coli</i> 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

## Section 4. First aid measures

dNTP Mix

the person providing aid to give mouth-to-mouth resuscitation.

Dpnl

No action shall be taken involving any personal risk or without suitable training.

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

5X SureSolution	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
SureVector AmpR Selectable Marker	Use an extinguishing agent suitable for the surrounding fire.
SureVector KanR Selectable Marker	Use an extinguishing agent suitable for the surrounding fire.
SureVector ChIR Selectable Marker	Use an extinguishing agent suitable for the surrounding fire.
SureVector pUC Origin	Use an extinguishing agent suitable for the surrounding fire.
SureVector XP1 Linker	Use an extinguishing agent suitable for the surrounding fire.
SureVector LacI Repressor	Use an extinguishing agent suitable for the surrounding fire.
SureVector T7-HIS6 <i>E. coli</i> Promoter	Use an extinguishing agent suitable for the surrounding fire.
SureVector LacZ Control (N-term)	Use an extinguishing agent suitable for the surrounding fire.
SureVector Enzyme Mix	Use an extinguishing agent suitable for the surrounding fire.
10X SureVector Buffer	Use an extinguishing agent suitable for the surrounding fire.
dNTP Mix	Use an extinguishing agent suitable for the surrounding fire.
Dpnl	Use an extinguishing agent suitable for the surrounding fire.

#### Unsuitable extinguishing media

5X SureSolution	Do not use water jet.
SureVector AmpR Selectable Marker	None known.
SureVector KanR Selectable Marker	None known.
SureVector ChIR Selectable Marker	None known.
SureVector pUC Origin	None known.
SureVector XP1 Linker	None known.
SureVector LacI Repressor	None known.
SureVector T7-HIS6 <i>E. coli</i> Promoter	None known.
SureVector LacZ Control (N-term)	None known.
SureVector Enzyme Mix	None known.
10X SureVector Buffer	None known.
dNTP Mix	None known.
Dpnl	None known.

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

## Section 5. Fire-fighting measures

**Specific hazards arising from the chemical** : 5X SureSolution

Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. 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.

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 XP1 Linker

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.

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.

DpnI

In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products** : 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 XP1 Linker

No specific data.

SureVector LacI Repressor

No specific data.

SureVector T7-HIS6 E. coli 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  
sulfur oxides  
halogenated compounds

## Section 5. Fire-fighting measures

dNTP Mix Dpnl	metal oxide/oxides No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
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### 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 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 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 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

## Section 5. Fire-fighting measures

### Special protective equipment for fire-fighters

DpnI		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.
5X SureSolution		Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector AmpR Selectable Marker		Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector KanR Selectable Marker		Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector ChIR Selectable Marker		Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector pUC Origin		Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector XP1 Linker		Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
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 <i>E. coli</i> 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.

## 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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SureVector AmpR 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 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 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 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 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.

## Section 6. Accidental release measures

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 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.
Dpnl	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.
<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 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 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

## Section 6. Accidental release measures

SureVector T7-HIS6 <i>E. coli</i> Promoter	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 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".
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".

### 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 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 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,

## Section 6. Accidental release measures

SureVector T7-HIS6 <i>E. coli</i> Promoter	waterways, soil or air). Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
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).
Dpnl	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

SureVector AmpR Selectable Marker	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 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

## Section 6. Accidental release measures

	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 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 <i>E. coli</i> 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 LacZ Control (N-term)	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.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

**Protective measures** : 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 XP1 Linker

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 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 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.

## Section 7. Handling and storage

### Advice on general occupational hygiene

: 5X SureSolution

SureVector AmpR Selectable Marker

SureVector KanR Selectable Marker

SureVector ChIR Selectable Marker

SureVector pUC Origin

SureVector XP1 Linker

SureVector LacI Repressor

SureVector T7-HIS6 *E. coli* Promoter

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.

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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## Section 7. Handling and storage

	<p>SureVector Enzyme Mix</p> <p>10X SureVector Buffer</p> <p>dNTP Mix</p> <p>Dpnl</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
<p><b>7.2 Conditions for safe storage, including any incompatibilities</b></p>	<p>: 5X SureSolution</p> <p>SureVector AmpR Selectable Marker</p> <p>SureVector KanR Selectable Marker</p>	<p>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. See Section 10 for incompatible materials before handling or use.</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. See Section 10 for incompatible materials before handling or use.</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</p>

## Section 7. Handling and storage

SureVector ChIR Selectable Marker	<p>incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
SureVector pUC Origin	<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. See Section 10 for incompatible materials before handling or use.</p>
SureVector XP1 Linker	<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. See Section 10 for incompatible materials before handling or use.</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. See Section 10 for incompatible materials before handling or use.</p>
SureVector T7-HIS6 <i>E. coli</i> 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</p>

## Section 7. Handling and storage

SureVector LacZ Control (N-term)

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

SureVector Enzyme Mix

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

10X SureVector Buffer

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

dNTP Mix

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

Dpnl

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

## Section 7. Handling and storage

### 7.3 Specific end use(s)

<b>Recommendations</b>	:	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 XP1 Linker	Industrial applications, Professional applications.	
		SureVector LacI Repressor	Industrial applications, Professional applications.	
		SureVector T7-HIS6 E. coli 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.	
	<b>Industrial sector specific solutions</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 XP1 Linker	Not available.	
		SureVector LacI Repressor	Not available.	
		SureVector T7-HIS6 E. coli 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.	

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>5X SureSolution</b> Dimethyl sulfoxide	<b>OARS WEEL (United States, 1/2021).</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 TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>OSHA PEL (United States, 5/2018).</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
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-  <b>10X SureVector Buffer</b>	None.

## Section 8. Exposure controls/personal protection

Potassium chloride	None.
Ammonium sulphate	None.
Polyoxyethylene octyl phenyl ether	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
	<b>OSHA PEL (United States, 5/2018).</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
Sodium chloride	None.

### 8.2 Exposure controls

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

### Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties and safety characteristics

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

### Appearance

<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 XP1 Linker	Liquid.	
	SureVector LacI Repressor	Liquid.	
	SureVector T7-HIS6 <i>E. coli</i> Promoter	Liquid.	
	SureVector LacZ Control (N-term)	Liquid.	
	SureVector Enzyme Mix	Liquid.	
	10X SureVector Buffer	Liquid.	
	dNTP Mix	Liquid.	
	DpnI	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 XP1 Linker		Not available.	
SureVector LacI Repressor		Not available.	
SureVector T7-HIS6 <i>E. coli</i> 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.	
<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 XP1 Linker	Not available.	
	SureVector LacI Repressor	Not available.	
	SureVector T7-HIS6 <i>E. coli</i> 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.	


## Section 9. Physical and chemical properties and safety characteristics

<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 XP1 Linker	Not available.	
	SureVector LacI Repressor	Not available.	
	SureVector T7-HIS6 <i>E. coli</i> 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.	
	<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 XP1 Linker		8	
SureVector LacI Repressor		8	
SureVector T7-HIS6 <i>E. coli</i> 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	
<b>Melting point/freezing 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 XP1 Linker	0°C (32°F)	
	SureVector LacI Repressor	0°C (32°F)	
	SureVector T7-HIS6 <i>E. coli</i> 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	0°C (32°F)	
	DpnI	Not available.	
	<b>Boiling point, initial boiling point, and boiling range</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)	


## Section 9. Physical and chemical properties and safety characteristics

SureVector XP1 Linker 100°C (212°F)  
 SureVector LacI Repressor 100°C (212°F)  
 SureVector T7-HIS6 E. coli 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 100°C (212°F)  
 DpnI Not available.

**Flash point**

:  SureSolution Closed cup: 87°C (188.6°F) [ASTM D 93]  
 Open 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 XP1 Linker Not available.  
 SureVector LacI Repressor Not available.  
 SureVector T7-HIS6 E. coli 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.

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
 SureVector AmpR Selectable Marker						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector KanR Selectable Marker</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector ChIR Selectable Marker</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector pUC Origin</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector XP1 Linker</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector LacI Repressor</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector T7-HIS6 E. coli Promoter</b>						
Edetic acid	>100	>212	DIN 51758			

## Section 9. Physical and chemical properties and safety characteristics

<b>SureVector LacZ Control (N-term)</b>			
Edetic acid	>100	>212	DIN 51758
<b>SureVector Enzyme Mix</b>			
Edetic acid	>100	>212	DIN 51758
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	>109.85	>229.7	
<b>10X SureVector Buffer</b>			
Polyoxyethylene octyl phenyl ether	>109.85	>229.7	
<b>dNTP Mix</b>			
Edetic acid	>100	>212	DIN 51758
<b>Dpnl</b>			
Edetic acid	>100	>212	DIN 51758
(R*,R*)-1,4-Dimercaptobutane-2,3-diol	>110	>230	

<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 XP1 Linker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 <i>E. coli</i> Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	Dpnl	Not available.
<b>Flammability</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 XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 <i>E. coli</i> Promoter	Not applicable.
	SureVector LacZ Control (N-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.

## Section 9. Physical and chemical properties and safety characteristics

	dNTP Mix	Not applicable.
	Dpnl	Not applicable.
<b>Lower and upper explosion limit/flammability limit</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 XP1 Linker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	Dpnl	Not available.
<b>Vapor pressure</b>	: 5X SureSolution	0.056 kPa (0.42 mm Hg) [EU A.4]
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	Dpnl	Not available.

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<b>SureVector AmpR Selectable Marker</b>						
water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	
<b>SureVector KanR Selectable Marker</b>						
water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	
<b>SureVector ChIR Selectable Marker</b>						

## Section 9. Physical and chemical properties and safety characteristics

water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001
<b>SureVector pUC Origin</b>					
water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001
<b>SureVector XP1 Linker</b>					
water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001
<b>SureVector LacI Repressor</b>					
water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001
<b>SureVector T7-HIS6 E. coli Promoter</b>					
water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001
<b>SureVector LacZ Control (N-term)</b>					
water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001
<b>SureVector Enzyme Mix</b>					
water	23.8	3.2		92.258	12.3
Sorbitan monolaurate, ethoxylated	<1	<0.13			
<b>10X SureVector Buffer</b>					
water	23.8	3.2		92.258	12.3
Polyoxyethylene octyl phenyl ether	<1	<0.13			
<b>dNTP Mix</b>					
water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001

## Section 9. Physical and chemical properties and safety characteristics

<b>Dpnl</b>						
water	23.8	3.2		92.258	12.3	
Glycerol	0.000075	0.00001		0.0025	0.00033	

### Relative vapor density

: 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 XP1 Linker	Not available.
SureVector LacI Repressor	Not available.
SureVector T7-HIS6 E. coli Promoter	Not available.
SureVector LacZ Control (N-term)	Not available.
SureVector Enzyme Mix	Not available.
10X SureVector Buffer	Not available.
dNTP Mix	Not available.
Dpnl	Not available.

### Relative density

: 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 XP1 Linker	Not available.
SureVector LacI Repressor	Not available.
SureVector T7-HIS6 E. coli Promoter	Not available.
SureVector LacZ Control (N-term)	Not available.
SureVector Enzyme Mix	Not available.
10X SureVector Buffer	Not available.
dNTP Mix	Not available.
Dpnl	Not available.

### Solubility

: 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 XP1 Linker	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 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.

## Section 9. Physical and chemical properties and safety characteristics

	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.
	Dpnl	Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: 5X SureSolution	-1.35
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector LacZ Control (N-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	Dpnl	Not applicable.
<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 XP1 Linker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	Dpnl	Not available.

Ingredient name	°C	°F	Method
<b>SureVector AmpR Selectable Marker</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector KanR Selectable Marker</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector ChIR Selectable Marker</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector pUC Origin</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector XP1 Linker</b>			
Edetic acid	>400	>752	VDI 2263

## Section 9. Physical and chemical properties and safety characteristics

<b>SureVector LacI Repressor</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector T7-HIS6 E. coli Promoter</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector LacZ Control (N-term)</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector Enzyme Mix</b>			
Glycerol	370	698	
Edetic acid	>400	>752	VDI 2263
<b>dNTP Mix</b>			
Edetic acid	>400	>752	VDI 2263
<b>DpnI</b>			
Glycerol	370	698	
Edetic acid	>400	>752	VDI 2263

**Decomposition temperature :** 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 XP1 Linker Not available.

SureVector LacI Repressor Not available.

SureVector T7-HIS6 E. coli 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.

**Viscosity :** 5X SureSolution Dynamic: 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 XP1 Linker Not available.

SureVector LacI Repressor Not available.

SureVector T7-HIS6 E. coli 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.

## Section 9. Physical and chemical properties and safety characteristics

### Particle characteristics

<b>Median particle size</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 XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli 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.

## 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 XP1 Linker	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 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.
<b>10.2 Chemical stability</b>	: 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 XP1 Linker	The product is stable.
	SureVector LacI Repressor	The product is stable.
	SureVector T7-HIS6 E. coli Promoter	The product is stable.

## Section 10. Stability and reactivity

	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.
<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 XP1 Linker	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 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.
<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 XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli 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.

## Section 10. Stability and reactivity

<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 XP1 Linker	May react or be incompatible with oxidizing materials.
	SureVector LacI Repressor	May react or be incompatible with oxidizing materials.
	SureVector T7-HIS6 <i>E. coli</i> Promoter	May react or be incompatible with oxidizing 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.
<b>10.6 Hazardous decomposition products</b>	: 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 XP1 Linker	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 <i>E. coli</i> 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.

## Section 10. Stability and reactivity

dNTP Mix

produced.

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Dpnl

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 LD50 Oral	Rat Rat	40000 mg/kg 14500 mg/kg	- -
<b>SureVector Enzyme Mix</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-
<b>10X SureVector Buffer</b> Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-
Ammonium sulphate	LD50 Oral	Rat	2840 mg/kg	-
Polyoxyethylene octyl phenyl ether	LD50 Oral	Rat	1800 mg/kg	-
<b>Dpnl</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 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 mg	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	100 mg	-
<b>SureVector Enzyme Mix</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-
<b>10X SureVector Buffer</b> Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
Polyoxyethylene octyl phenyl	Skin - Mild irritant	Rabbit	-	24 hours 500	-

## Section 11. Toxicological information

ether				uL	
<b>Dpnl</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant Skin - Mild irritant	Rabbit Rabbit	- -	10 mg 24 hours 500 mg	- -

### Sensitization

Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
<b>10X SureVector Buffer</b> Polyoxyethylene octyl phenyl ether	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

<b>Information on the likely routes of exposure</b>	: 5X SureSolution	Routes of entry anticipated: Oral, Dermal, Inhalation.
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli 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.

## Section 11. Toxicological information

	Dpnl	Routes of entry anticipated: Oral, Dermal, Inhalation.
<b>Potential acute health effects</b>		
<b>Eye contact</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector KanR Selectable Marker SureVector ChIR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7-HIS6 E. coli Promoter SureVector LacZ Control (N-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix Dpnl	Causes eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. Causes serious eye irritation. No known significant effects or critical hazards. Causes serious eye irritation.
<b>Inhalation</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector KanR Selectable Marker SureVector ChIR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7-HIS6 E. coli Promoter SureVector LacZ Control (N-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix Dpnl	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector KanR Selectable Marker SureVector ChIR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7-HIS6 E. coli Promoter SureVector LacZ Control (N-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix Dpnl	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

## Section 11. Toxicological information

<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 XP1 Linker	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 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.

### 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 XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli 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
<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 XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli	No specific data.

## Section 11. Toxicological information

	Promoter	
	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.
<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 XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli 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.
<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 XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli 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.

### 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

## Section 11. Toxicological information

<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 XP1 Linker	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 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.
<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 XP1 Linker	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 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.
<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 XP1 Linker	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 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.
<b>Reproductive toxicity</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.

## Section 11. Toxicological information

SureVector XP1 Linker	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 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.
Dpnl	No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
<b>5X SureSolution</b> Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A
<b>SureVector Enzyme Mix</b> Glycerol	12600	N/A	N/A	N/A	N/A
Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	2800	N/A	N/A	N/A	N/A
<b>10X SureVector Buffer</b> 10X SureVector Buffer	41044.5	N/A	N/A	N/A	N/A
Potassium chloride	2600	N/A	N/A	N/A	N/A
Ammonium sulphate	2840	N/A	N/A	N/A	N/A
Polyoxyethylene octyl phenyl ether	1800	N/A	N/A	N/A	N/A
<b>Dpnl</b> Dpnl	128314.8	N/A	N/A	N/A	N/A
Glycerol	12600	N/A	N/A	N/A	N/A
Sodium chloride	3000	N/A	N/A	N/A	N/A

## 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
	Chronic NOEC 100 µl/L Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	21 days
<b>SureVector Enzyme Mix</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Acute EC50 210 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 10800 µg/l Marine water	Crustaceans - Pandalus	48 hours

## Section 12. Ecological information

<b>10X SureVector Buffer</b> Potassium chloride	Acute LC50 8600 µg/l Fresh water	montagui - Adult	48 hours
	Acute LC50 7200 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	96 hours
	Acute EC50 1337000 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Ammonium sulphate	Acute EC50 9.24 g/L Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 83000 µg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute LC50 9.68 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Polyoxyethylene octyl phenyl ether	Acute LC50 509.65 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
	Chronic NOEC 7.5 mg/l Marine water	Fish - Danio rerio	96 hours
	Acute LC50 5.85 mg/l Fresh water	Algae - Phaeodactylum tricornutum - Exponential growth phase	96 hours
<b>Dpnl</b> Glycerol	Acute LC50 11.2 mg/l Fresh water	Crustaceans - Ceriodaphnia rigaudi - Neonate	48 hours
	Acute LC50 4500 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 54000 mg/l Fresh water	Fish - Pimephales promelas	96 hours
Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 519.6 mg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 402.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic LC10 781 mg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
		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

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>5X SureSolution</b> Dimethyl sulfoxide	OECD 301D Ready Biodegradability - Closed Bottle Test	31 % - Not readily - 28 days	-	-
<b>SureVector Enzyme Mix</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
<b>Dpnl</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

## Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>5X SureSolution</b> Dimethyl sulfoxide	-	-	Not readily
<b>10X SureVector Buffer</b> Potassium chloride	-	-	Readily
Ammonium sulphate	-	-	Readily
Polyoxyethylene octyl phenyl ether	-	-	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
Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	3.77	78.67	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> Glycerol	-1.76	-	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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 13. Disposal considerations

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

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

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

## Section 14. Transport information

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

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

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

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

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

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

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

**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

## Section 15. Regulatory information

<b>Classification</b>	: 5X SureSolution	FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2B
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector LacZ Control (N-term)	Not applicable.
	SureVector Enzyme Mix	EYE IRRITATION - Category 2B
	10X SureVector Buffer	EYE IRRITATION - Category 2A
	dNTP Mix	Not applicable.
	DpnI	EYE IRRITATION - Category 2A

### Composition/information on ingredients

Name	%	Classification
<b>5X SureSolution</b> Dimethyl sulfoxide	100	FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2B
<b>SureVector Enzyme Mix</b> Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
<b>10X SureVector Buffer</b> Potassium chloride	≤5	EYE IRRITATION - Category 2B
Ammonium sulphate	≤3	EYE IRRITATION - Category 2A
Polyoxyethylene octyl phenyl ether	<2.5	ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
<b>DpnI</b> Glycerol	≥50 - ≤75	EYE IRRITATION - Category 2B
Sodium chloride	≤3	EYE IRRITATION - Category 2A

### 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

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

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

### International regulations

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

Not listed.

#### Montreal Protocol

Not listed.

## Section 15. Regulatory information

### 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

<b>Australia</b>	: Not determined.
<b>Canada</b>	: Not determined.
<b>China</b>	: All components are listed or exempted.
<b>Europe</b>	: All components are listed or exempted.
<b>Japan</b>	: <b>Japan inventory (CSCL)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are active or exempted.
<b>Viet Nam</b>	: Not determined.

## Section 16. Other information

### Procedure used to derive the classification

Classification	Justification
<b>5X SureSolution</b> FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2B	On basis of test data On basis of test data
<b>SureVector Enzyme Mix</b> EYE IRRITATION - Category 2B	Calculation method
<b>10X SureVector Buffer</b> EYE IRRITATION - Category 2A	Calculation method
<b>Dpnl</b> EYE IRRITATION - Category 2A	Calculation method

### History

<b>Date of issue</b>	: 04/05/2022
<b>Date of previous issue</b>	: 08/14/2019
<b>Version</b>	: 4

### Key to abbreviations

: ATE = Acute Toxicity Estimate
: BCF = Bioconcentration Factor
: GHS = Globally Harmonized System of Classification and Labelling of Chemicals
: IATA = International Air Transport Association
: IBC = Intermediate Bulk Container
: IMDG = International Maritime Dangerous Goods
: LogPow = logarithm of the octanol/water partition coefficient
: MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

## Section 16. Other information

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

UN = United Nations

✔ Indicates information that has changed from previously issued version.

### [Notice to reader](#)

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