

# SAFETY DATA SHEET

SureVector E. coli N-terminal Promotor kit, 5 rxn, Part Number G7518B

## Section 1. Identification

### 1.1 Product identifier

<b>Product name</b>	: SureVector E. coli N-terminal Promotor kit, 5 rxn, Part Number G7518B
<b>Part no. (chemical kit)</b>	: G7518B
<b>Part no.</b>	: 5X SureSolution 5190-8625
	SureVector AmpR Selectable Marker 5190-8807
	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 T7 E. coli Promoter 5190-8818
	SureVector Tac E. coli Promoter 5190-8820
	SureVector HIS6 E. coli Expression Tag (N-term) 5190-8821
	SureVector Enzyme Mix 5190-8621
	10X SureVector Buffer 5190-8622
	dNTP Mix 200518-56
	DpnI 5190-8624

**Validation date** : 3/28/2022

### 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 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 T7 E. coli Promoter 0.01 ml (5 reactions)
	SureVector Tac E. coli Promoter 0.01 ml (5 reactions)
	SureVector HIS6 E. coli Expression Tag (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 0.015 ml (15 reactions)

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

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

### 1.4 Emergency telephone number

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

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

<b>OSHA/HCS status</b>	: 5X SureSolution	
	SureVector AmpR Selectable Marker	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	SureVector 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 T7 <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 Tac <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 HIS6 <i>E. coli</i> Expression Tag (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).

## Section 2. Hazards identification

10X SureVector Buffer

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

dNTP Mix

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

DpnI

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

### Classification of the substance or mixture

#### **5X SureSolution**

H227

FLAMMABLE LIQUIDS - Category 4

H320

EYE IRRITATION - Category 2B

#### **SureVector Enzyme Mix**

H320

EYE IRRITATION - Category 2B

#### **10X SureVector Buffer**

H319

EYE IRRITATION - Category 2A

#### **DpnI**

H319

EYE IRRITATION - Category 2A

### 2.2 GHS label elements

#### **Hazard pictograms**

: 10X SureVector Buffer



DpnI



#### **Signal word**

: 5X SureSolution  
 SureVector AmpR Selectable Marker  
 SureVector pUC Origin  
 SureVector XP1 Linker  
 SureVector LacI Repressor  
 SureVector T7-HIS6 *E. coli* Promoter  
 SureVector LacZ Control (N-term)  
 SureVector T7 *E. coli* Promoter  
 SureVector Tac *E. coli* Promoter  
 SureVector HIS6 *E. coli* Expression Tag (N-term)  
 SureVector Enzyme Mix  
 10X SureVector Buffer  
 dNTP Mix  
 DpnI

Warning  
 No signal word.

No signal word.  
 No signal word.  
 No signal word.  
 No signal word.

No signal word.  
 No signal word.  
 No signal word.  
 No signal word.

Warning  
 Warning  
 No signal word.  
 Warning

## Section 2. Hazards identification

<b>Hazard statements</b>	: 5X SureSolution	H227 - Combustible liquid. H320 - Causes eye irritation. No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7-HIS6 <i>E. coli</i> Promoter SureVector LacZ Control (N-term) SureVector T7 <i>E. coli</i> Promoter SureVector Tac <i>E. coli</i> Promoter SureVector HIS6 <i>E. coli</i> Expression Tag (N-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	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. H320 - Causes eye irritation. H319 - Causes serious eye irritation. No known significant effects or critical hazards. H319 - Causes serious eye irritation.
<b>Precautionary statements</b>		
<b>Prevention</b>	: <del>5</del> X SureSolution	P210 - Keep away from flames and hot surfaces. No smoking. Not applicable.
	SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7-HIS6 <i>E. coli</i> Promoter SureVector LacZ Control (N-term) SureVector T7 <i>E. coli</i> Promoter SureVector Tac <i>E. coli</i> Promoter SureVector HIS6 <i>E. coli</i> Expression Tag (N-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
<b>Response</b>	: <del>5</del> X 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 SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7-HIS6 <i>E. coli</i> Promoter SureVector LacZ Control (N-term) SureVector T7 <i>E. coli</i> Promoter SureVector Tac <i>E. coli</i> Promoter SureVector HIS6 <i>E. coli</i> Expression Tag (N-term) SureVector Enzyme Mix	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
		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. 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 DpnI	Not applicable. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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 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 T7 E. coli Promoter	Not applicable.
	SureVector Tac E. coli Promoter	Not applicable.
	SureVector HIS6 E. coli Expression Tag (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 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 T7 E. coli Promoter	Not applicable.
	SureVector Tac E. coli Promoter	Not applicable.
	SureVector HIS6 E. coli Expression Tag (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 pUC Origin	None known.
	SureVector XP1 Linker	None known.
	SureVector LacI Repressor	None known.
	SureVector T7-HIS6 E. coli	None known.

## Section 2. Hazards identification

Promoter	
SureVector LacZ Control (N-term)	None known.
SureVector T7 E. coli Promoter	None known.
SureVector Tac E. coli Promoter	None known.
SureVector HIS6 E. coli	None known.
Expression Tag (N-term)	
SureVector Enzyme Mix	None known.
10X SureVector Buffer	None known.
dNTP Mix	None known.
DpnI	None known.

### 2.3 Other hazards

#### Hazards not otherwise classified

: 5X SureSolution	None known.
SureVector AmpR 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 T7 E. coli Promoter	None known.
SureVector Tac E. coli Promoter	None known.
SureVector HIS6 E. coli	None known.
Expression Tag (N-term)	
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 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 T7 E. coli Promoter	Mixture
		SureVector Tac E. coli Promoter	Mixture
		SureVector HIS6 E. coli Expression Tag (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

### Section 3. Composition/information on ingredients

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

SureVector pUC Origin

SureVector XP1 Linker

SureVector LacI Repressor

SureVector T7-HIS6 E. coli Promoter

SureVector LacZ Control (N-term)

SureVector T7 E. coli Promoter

SureVector Tac E. coli Promoter

SureVector HIS6 E. coli Expression Tag (N-term)

SureVector Enzyme Mix

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

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. Get medical attention if irritation occurs.

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

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. Get medical attention if irritation occurs.

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

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. Get medical attention if irritation occurs.

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

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.



## Section 4. First aid measures

	10X SureVector Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	dNTP Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	DpnI	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.
<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 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 T7 <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 Tac <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 HIS6 <i>E. coli</i> Expression Tag (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



## Section 4. First aid measures

attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

10X SureVector Buffer

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

dNTP Mix

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

DpnI

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Skin contact

: 5X SureSolution

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

SureVector AmpR Selectable Marker

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

SureVector pUC Origin

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

SureVector XP1 Linker

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

SureVector LacI Repressor

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

SureVector T7-HIS6 *E. coli* Promoter

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


SureVector LacZ Control (N-term)

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

SureVector T7 *E. coli* Promoter

Flush contaminated skin with plenty of water.

## Section 4. First aid measures

	SureVector Tac E. coli Promoter	Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector HIS6 E. coli Expression Tag (N-term)	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector Enzyme Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	10X SureVector Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	dNTP Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	DpnI	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash 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 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,

## Section 4. First aid measures

	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 E. coli 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 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 T7 E. coli 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 personnel. Get medical attention if symptoms occur.
SureVector Tac E. coli 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 personnel. Get medical attention if symptoms occur.
SureVector HIS6 E. coli Expression Tag (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

## Section 4. First aid measures

dNTP Mix

immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.

DpnI

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

##### Eye contact

: 5X SureSolution  
SureVector AmpR Selectable Marker  
SureVector pUC Origin  
SureVector XP1 Linker  
SureVector LacI Repressor  
SureVector T7-HIS6 *E. coli* Promoter  
SureVector LacZ Control (N-term)  
SureVector T7 *E. coli* Promoter  
SureVector Tac *E. coli* Promoter  
SureVector HIS6 *E. coli* Expression Tag (N-term)  
SureVector Enzyme Mix  
10X SureVector Buffer  
dNTP Mix  
DpnI

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.  
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.

##### Inhalation

: 5X SureSolution  
SureVector AmpR Selectable Marker  
SureVector pUC Origin  
SureVector XP1 Linker  
SureVector LacI Repressor  
SureVector T7-HIS6 *E. coli* Promoter  
SureVector LacZ Control (N-term)  
SureVector T7 *E. coli* Promoter  
SureVector Tac *E. coli* Promoter  
SureVector HIS6 *E. coli* Expression Tag (N-term)  
SureVector Enzyme Mix  
10X SureVector Buffer  
dNTP Mix

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.  
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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 4. First aid measures

<b>Skin contact</b>	DpnI	No known significant effects or critical hazards.
	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR 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 T7 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6 E. coli Expression Tag (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>Ingestion</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR 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 T7 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6 E. coli Expression Tag (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

<b>Eye contact</b>	: 5X SureSolution	Adverse symptoms may include the following: irritation watering redness
	SureVector AmpR 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 T7 E. coli Promoter	No specific data.
	SureVector Tac E. coli Promoter	No specific data.
	SureVector HIS6 E. coli Expression Tag (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

## Section 4. First aid measures

	dNTP Mix	redness
	DpnI	No specific data.
		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 pUC Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 <i>E. coli</i> Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector T7 <i>E. coli</i> Promoter	No specific data.
	SureVector Tac <i>E. coli</i> Promoter	No specific data.
	SureVector HIS6 <i>E. coli</i> Expression Tag (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 pUC Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 <i>E. coli</i> Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector T7 <i>E. coli</i> Promoter	No specific data.
	SureVector Tac <i>E. coli</i> Promoter	No specific data.
	SureVector HIS6 <i>E. coli</i> Expression Tag (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 pUC Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 <i>E. coli</i> Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector T7 <i>E. coli</i> Promoter	No specific data.
	SureVector Tac <i>E. coli</i> Promoter	No specific data.
	SureVector HIS6 <i>E. coli</i> Expression Tag (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

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

<b>Notes to physician</b>	: 5X SureSolution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector AmpR Selectable Marker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector 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 <i>E. coli</i> Promoter	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector LacZ Control (N-term)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector T7 <i>E. coli</i> Promoter	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector Tac <i>E. coli</i> Promoter	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector HIS6 <i>E. coli</i> Expression Tag (N-term)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector Enzyme Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	10X SureVector Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	dNTP Mix	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 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 T7 <i>E. coli</i> Promoter	No specific treatment.
	SureVector Tac <i>E. coli</i> Promoter	No specific treatment.
	SureVector HIS6 <i>E. coli</i> Expression Tag (N-term)	No specific treatment.
	SureVector Enzyme Mix	No specific treatment.
	10X SureVector Buffer	No specific treatment.



## Section 4. First aid measures

<b>Protection of first-aiders</b>	dNTP Mix	No specific treatment.
	DpnI	No specific treatment.
	: 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 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 T7 <i>E. coli</i> Promoter	No action shall be taken involving any personal risk or without suitable training.
	SureVector Tac <i>E. coli</i> Promoter	No action shall be taken involving any personal risk or without suitable training.
	SureVector HIS6 <i>E. coli</i> Expression Tag (N-term)	No action shall be taken involving any personal risk or without suitable training.
	SureVector Enzyme Mix	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	10X SureVector Buffer	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

dNTP Mix

DpnI

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

<b>Suitable extinguishing media</b>	: 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 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 T7 <i>E. coli</i> Promoter	Use an extinguishing agent suitable for the surrounding fire.

## Section 5. Fire-fighting measures

	SureVector Tac E. coli Promoter	Use an extinguishing agent suitable for the surrounding fire.
	SureVector HIS6 E. coli Expression Tag (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.
	DpnI	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 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 T7 E. coli Promoter	None known.
	SureVector Tac E. coli Promoter	None known.
	SureVector HIS6 E. coli Expression Tag (N-term)	None known.
	SureVector Enzyme Mix	None known.
	10X SureVector Buffer	None known.
	dNTP Mix	None known.
	DpnI	None known.

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

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 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 T7 E. coli Promoter	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector Tac E. coli Promoter	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector HIS6 E. coli Expression Tag (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.

## Section 5. Fire-fighting measures

### Hazardous thermal decomposition products

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.
: 5X SureSolution	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
SureVector AmpR 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 <i>E. coli</i> Promoter	No specific data.
SureVector LacZ Control (N-term)	No specific data.
SureVector T7 <i>E. coli</i> Promoter	No specific data.
SureVector Tac <i>E. coli</i> Promoter	No specific data.
SureVector HIS6 <i>E. coli</i> Expression Tag (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 metal oxide/oxides
dNTP Mix	No specific data.
DpnI	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides

### 5.3 Advice for firefighters

#### Special protective actions for fire-fighters

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

## Section 5. Fire-fighting measures

from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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 T7 *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 Tac *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 HIS6 *E. coli* Expression Tag (N-term)

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

SureVector Enzyme Mix

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

10X SureVector Buffer

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

dNTP Mix

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

DpnI

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

### Special protective equipment for fire-fighters

: 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 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

## Section 5. Fire-fighting measures

SureVector T7-HIS6 <i>E. coli</i> Promoter	equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
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 T7 <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 Tac <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 HIS6 <i>E. coli</i> Expression Tag (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

SureVector AmpR Selectable Marker

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. 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.  
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.  
No action shall be taken involving any personal

## Section 6. Accidental release measures

SureVector XP1 Linker

risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. 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.

SureVector T7 *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 Tac *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 HIS6 *E. coli* Expression Tag (N-term)

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

SureVector Enzyme Mix

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

10X SureVector Buffer

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not



## Section 6. Accidental release measures

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.

DpnI

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders :** 5X SureSolution

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 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 the information in "For non-emergency personnel".

SureVector T7-HIS6 *E. coli* Promoter

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

SureVector 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 T7 *E. coli* Promoter

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

SureVector Tac *E. coli* Promoter

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

SureVector HIS6 *E. coli* Expression Tag (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".



## Section 6. Accidental release measures

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

## Section 6. Accidental release measures

SureVector HIS6 *E. coli*  
Expression Tag (N-term)

caused environmental pollution (sewers, 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 Enzyme Mix

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

10X SureVector Buffer

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

dNTP Mix

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

DpnI

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

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

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

SureVector AmpR Selectable  
Marker

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

SureVector pUC Origin

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

SureVector 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.

## Section 6. Accidental release measures

SureVector T7-HIS6 <i>E. coli</i> Promoter	disposal contractor. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
SureVector 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 T7 <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 Tac <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 HIS6 <i>E. coli</i> Expression Tag (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.
DpnI	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 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 T7 *E. coli* Promoter

Put on appropriate personal protective equipment (see Section 8).

SureVector Tac *E. coli* Promoter

Put on appropriate personal protective equipment (see Section 8).

SureVector HIS6 *E. coli*  
Expression Tag (N-term)  
SureVector Enzyme Mix

Put on appropriate personal protective equipment (see Section 8).

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

## Section 7. Handling and storage

### Advice on general occupational hygiene

: 5X SureSolution

SureVector AmpR Selectable Marker

SureVector pUC Origin

SureVector XP1 Linker

SureVector LacI Repressor

SureVector T7-HIS6 *E. coli* Promoter

SureVector LacZ Control (N-term)

SureVector T7 *E. coli* Promoter

SureVector Tac *E. coli* Promoter

not reuse container.

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.

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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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.

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

## Section 7. Handling and storage

SureVector HIS6 *E. coli*  
Expression Tag (N-term)

SureVector Enzyme Mix

10X SureVector Buffer

dNTP Mix

DpnI

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. 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. 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.

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

: 5X SureSolution

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.

SureVector AmpR Selectable  
Marker

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been



## Section 7. Handling and storage

SureVector pUC Origin

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.

SureVector XP1 Linker

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

SureVector LacI Repressor

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 T7-HIS6 *E. coli* Promoter

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 LacZ Control (N-term)

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

SureVector T7 <i>E. coli</i> Promoter	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 Tac <i>E. coli</i> Promoter	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 HIS6 <i>E. coli</i> Expression Tag (N-term)	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

## Section 7. Handling and storage

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.

DpnI

### 7.3 Specific end use(s)

#### Recommendations

5X SureSolution	Industrial applications, Professional applications.
SureVector AmpR 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 <i>E. coli</i> Promoter	Industrial applications, Professional applications.
SureVector LacZ Control (N-term)	Industrial applications, Professional applications.
SureVector T7 <i>E. coli</i> Promoter	Industrial applications, Professional applications.
SureVector Tac <i>E. coli</i> Promoter	Industrial applications, Professional applications.
SureVector HIS6 <i>E. coli</i> Expression Tag (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.

#### Industrial sector specific solutions

5X SureSolution	Not available.
SureVector AmpR 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 T7 <i>E. coli</i> Promoter	Not available.
SureVector Tac <i>E. coli</i> Promoter	Not available.
SureVector HIS6 <i>E. coli</i> Expression Tag (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 None.
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	None.
<b>10X SureVector Buffer</b> Potassium chloride Ammonium sulphate Polyoxyethylene octyl phenyl ether	None. None. None.
<b>Dpnl</b> Glycerol	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust <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 None.
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

## Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : 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 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 T7 <i>E. coli</i> Promoter	Liquid.
	SureVector Tac <i>E. coli</i> Promoter	Liquid.
	SureVector HIS6 <i>E. coli</i> Expression Tag (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 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 T7 <i>E. coli</i> Promoter	Not available.
	SureVector Tac <i>E. coli</i> Promoter	Not available.
	SureVector HIS6 <i>E. coli</i> Expression Tag (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</b>	:	5X SureSolution	Odorless. [Slight]
		SureVector AmpR 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 T7 <i>E. coli</i> Promoter	Not available.
		SureVector Tac <i>E. coli</i> Promoter	Not available.
		SureVector HIS6 <i>E. coli</i> Expression Tag (N-term)	Not available.
		SureVector Enzyme Mix	Not available.
		10X SureVector Buffer	Not available.
		dNTP Mix	Not available.
		DpnI	Not available.
<b>Odor threshold</b>	:	5X SureSolution	Not available.
		SureVector AmpR 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 T7 <i>E. coli</i> Promoter	Not available.
		SureVector Tac <i>E. coli</i> Promoter	Not available.
		SureVector HIS6 <i>E. coli</i> Expression Tag (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 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 T7 <i>E. coli</i> Promoter	8
		SureVector Tac <i>E. coli</i> Promoter	8
		SureVector HIS6 <i>E. coli</i> Expression Tag (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 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)

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

	SureVector T7 E. coli Promoter	0°C (32°F)
	SureVector Tac E. coli Promoter	0°C (32°F)
	SureVector HIS6 E. coli	0°C (32°F)
	Expression Tag (N-term)	
	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 pUC Origin	100°C (212°F)
	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 T7 E. coli Promoter	100°C (212°F)
	SureVector Tac E. coli Promoter	100°C (212°F)
	SureVector HIS6 E. coli	100°C (212°F)
	Expression Tag (N-term)	
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	100°C (212°F)
	DpnI	Not available.

<b>Flash point</b>	5X 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 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 T7 E. coli Promoter	Not available.
	SureVector Tac E. coli Promoter	Not available.
	SureVector HIS6 E. coli	Not available.
	Expression Tag (N-term)	
	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 pUC Origin</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector XP1 Linker</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector LacI</b>						

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

<b>Repressor</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector T7-HIS6 E. coli Promoter</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector LacZ Control (N-term)</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector T7 E. coli Promoter</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector Tac E. coli Promoter</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector HIS6 E. coli Expression Tag (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				

### Evaporation rate

5X SureSolution	0.026 (butyl acetate = 1)
SureVector AmpR 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 T7 E. coli Promoter	Not available.
SureVector Tac E. coli Promoter	Not available.



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

	SureVector HIS6 E. coli Expression Tag (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
<b>Flammability</b>	: 5X SureSolution	Not applicable.
	SureVector AmpR 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 T7 E. coli Promoter	Not applicable.
	SureVector Tac E. coli Promoter	Not applicable.
	SureVector HIS6 E. coli Expression Tag (N-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	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 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 T7 E. coli Promoter	Not available.
	SureVector Tac E. coli Promoter	Not available.
	SureVector HIS6 E. coli Expression Tag (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	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 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 T7 E. coli Promoter	Not available.
	SureVector Tac E. coli Promoter	Not available.
	SureVector HIS6 E. coli Expression Tag (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

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 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 T7 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 Tac E. coli Promoter</b>						
Water	23.8	3.2		92.258	12.3	

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

2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	
<b>SureVector HIS6 E. coli Expression Tag (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	
<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 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 T7 E. coli Promoter	Not available.
SureVector Tac E. coli Promoter	Not available.
SureVector HIS6 E. coli Expression Tag (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 pUC Origin	Not available.
SureVector XP1 Linker	Not available.
SureVector LacI Repressor	Not available.
SureVector T7-HIS6 E. coli Promoter	Not available.

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

	SureVector LacZ Control (N-term)	Not available.
	SureVector T7 E. coli Promoter	Not available.
	SureVector Tac E. coli Promoter	Not available.
	SureVector HIS6 E. coli Expression Tag (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
<b>Solubility</b>	: 5X SureSolution	Easily soluble in the following materials: cold water and hot water.
	SureVector AmpR Selectable Marker	Easily soluble in the following materials: cold water and hot water.
	SureVector 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 T7 E. coli Promoter	Easily soluble in the following materials: cold water and hot water.
	SureVector Tac E. coli Promoter	Easily soluble in the following materials: cold water and hot water.
	SureVector HIS6 E. coli Expression Tag (N-term)	Easily soluble in the following materials: cold water and hot water.
	SureVector Enzyme Mix	Soluble in the following materials: cold water and hot water.
	10X SureVector Buffer	Easily soluble in the following materials: cold water and hot water.
	dNTP Mix	Easily soluble in the following materials: cold water and hot water.
	DpnI	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 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 T7 E. coli Promoter	Not applicable.
	SureVector Tac E. coli Promoter	Not applicable.
	SureVector HIS6 E. coli Expression Tag (N-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.

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

<b>Auto-ignition temperature</b>	5X SureSolution	300 to 302°C (572 to 575.6°F)
	SureVector AmpR 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 T7 E. coli Promoter	Not available.
	SureVector Tac E. coli Promoter	Not available.
	SureVector HIS6 E. coli Expression Tag (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.

Ingredient name	°C	°F	Method
<b>SureVector AmpR 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
<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 T7 E. coli Promoter</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector Tac E. coli Promoter</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector HIS6 E. coli Expression Tag (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>			

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

Edetic acid	>400	>752	VDI 2263
<b>Dpnl</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 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 T7 *E. coli* Promoter Not available.

SureVector Tac *E. coli* Promoter Not available.

SureVector HIS6 *E. coli* Expression Tag (N-term) Not available.

SureVector Enzyme Mix Not available.

10X SureVector Buffer Not available.

dNTP Mix Not available.

Dpnl Not available.

**Viscosity** : 5X SureSolution Dynamic: 2.14 mPa·s (2.14 cP)

SureVector AmpR 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 T7 *E. coli* Promoter Not available.

SureVector Tac *E. coli* Promoter Not available.

SureVector HIS6 *E. coli* Expression Tag (N-term) Not available.

SureVector Enzyme Mix Not available.

10X SureVector Buffer Not available.

dNTP Mix Not available.

Dpnl Not available.

### Particle characteristics

**Median particle size** : 5X SureSolution Not applicable.

SureVector AmpR 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 T7 *E. coli* Promoter Not applicable.

SureVector Tac *E. coli* Promoter Not applicable.

SureVector HIS6 *E. coli* Expression Tag (N-term) Not applicable.

SureVector Enzyme Mix Not applicable.

10X SureVector Buffer Not applicable.

dNTP Mix Not applicable.

Dpnl 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 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 T7 E. coli Promoter	No specific test data related to reactivity available for this product or its ingredients.
	SureVector Tac E. coli Promoter	No specific test data related to reactivity available for this product or its ingredients.
	SureVector HIS6 E. coli Expression Tag (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 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.
	SureVector LacZ Control (N-term)	The product is stable.
	SureVector T7 E. coli Promoter	The product is stable.
	SureVector Tac E. coli Promoter	The product is stable.
	SureVector HIS6 E. coli Expression Tag (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 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	Under normal conditions of storage and use,

## Section 10. Stability and reactivity

Promoter	hazardous reactions will not occur.
SureVector LacZ Control (N-term)	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector T7 E. coli Promoter	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector Tac E. coli Promoter	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector HIS6 E. coli Expression Tag (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 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 T7 E. coli Promoter	No specific data.
	SureVector Tac E. coli Promoter	No specific data.
	SureVector HIS6 E. coli Expression Tag (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>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 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 E. coli Promoter	May react or be incompatible with oxidizing materials.
	SureVector LacZ Control (N-term)	May react or be incompatible with oxidizing materials.
	SureVector T7 E. coli Promoter	May react or be incompatible with oxidizing materials.
	SureVector Tac E. coli Promoter	May react or be incompatible with oxidizing materials.

## Section 10. Stability and reactivity

	SureVector HIS6 E. coli Expression Tag (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 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 E. coli 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 T7 E. coli Promoter	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureVector Tac E. coli Promoter	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureVector HIS6 E. coli Expression Tag (N-term)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureVector Enzyme Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	10X SureVector Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	dNTP Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	DpnI	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 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 ether	Skin - Mild irritant	Rabbit	-	24 hours 500 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	Rabbit	-	10 mg	-

## Section 11. Toxicological information

	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
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### 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.

### Information on the likely routes of exposure

: 5X SureSolution

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

SureVector AmpR 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 T7 E. coli Promoter

Not available.

SureVector Tac E. coli Promoter

Not available.

SureVector HIS6 E. coli

Not available.

Expression Tag (N-term)

SureVector Enzyme Mix

Routes of entry anticipated: Oral, Dermal, Inhalation.

10X SureVector Buffer

Routes of entry anticipated: Oral, Dermal, Inhalation.

dNTP Mix

Not available.

DpnI

Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

#### Eye contact

: 5X SureSolution

Causes eye irritation.

SureVector AmpR 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 11. Toxicological information

	Promoter	
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector T7 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6 E. coli	No known significant effects or critical hazards.
	Expression Tag (N-term)	
	SureVector Enzyme Mix	Causes eye irritation.
	10X SureVector Buffer	Causes serious eye irritation.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	Causes serious eye irritation.
<b>Inhalation</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR 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 T7 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6 E. coli	No known significant effects or critical hazards.
	Expression Tag (N-term)	
	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>Skin contact</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR 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 T7 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6 E. coli	No known significant effects or critical hazards.
	Expression Tag (N-term)	
	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>Ingestion</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR 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 T7 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6 E. coli	No known significant effects or critical hazards.
	Expression Tag (N-term)	
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.



## Section 11. Toxicological information

dNTP Mix  
DpnI

No known significant effects or critical hazards.  
No known significant effects or critical hazards.

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

#### Eye contact

: 5X SureSolution

Adverse symptoms may include the following:  
irritation

watering

redness

SureVector AmpR 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 T7 E. coli Promoter

No specific data.

SureVector Tac E. coli Promoter

No specific data.

SureVector HIS6 E. coli

No specific data.

Expression Tag (N-term)

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 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 T7 E. coli Promoter

No specific data.

SureVector Tac E. coli Promoter

No specific data.

SureVector HIS6 E. coli

No specific data.

Expression Tag (N-term)

SureVector Enzyme Mix

No specific data.

10X SureVector Buffer

No specific data.

dNTP Mix

No specific data.

DpnI

No specific data.

#### Skin contact

: 5X SureSolution

No specific data.

SureVector AmpR 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.

## Section 11. Toxicological information

Ingestion	SureVector T7 E. coli Promoter	No specific data.
	SureVector Tac E. coli Promoter	No specific data.
	SureVector HIS6 E. coli	No specific data.
	Expression Tag (N-term)	
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.
	: 5X SureSolution	No specific data.
	SureVector AmpR 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 T7 E. coli Promoter	No specific data.
	SureVector Tac E. coli Promoter	No specific data.
	SureVector HIS6 E. coli	No specific data.
	Expression Tag (N-term)	
	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

General	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR 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 T7 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6 E. coli	No known significant effects or critical hazards.
	Expression Tag (N-term)	
	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.

## Section 11. Toxicological information

<b>Carcinogenicity</b>	:	5X SureSolution	No known significant effects or critical hazards.
		SureVector AmpR 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 T7 E. coli Promoter	No known significant effects or critical hazards.
		SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
		SureVector HIS6 E. coli Expression Tag (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 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 T7 E. coli Promoter	No known significant effects or critical hazards.
		SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
		SureVector HIS6 E. coli Expression Tag (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 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 T7 E. coli Promoter	No known significant effects or critical hazards.
		SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
		SureVector HIS6 E. coli Expression Tag (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.

### Numerical measures of toxicity

#### Acute toxicity estimates

## Section 11. Toxicological information

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 montagui - Adult	48 hours
	Acute LC50 8600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 7200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
<b>10X SureVector Buffer</b> Potassium chloride	Acute EC50 1337000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 83000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 9.68 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
	Acute LC50 509.65 mg/l Fresh water	Fish - Danio rerio	96 hours

## Section 12. Ecological information

Ammonium sulphate	Chronic NOEC 7.5 mg/l Marine water	Algae - Phaeodactylum tricornutum - Exponential growth phase	96 hours
Polyoxyethylene octyl phenyl ether	Acute LC50 5.85 mg/l Fresh water	Crustaceans - Ceriodaphnia rigaudi - Neonate	48 hours
	Acute LC50 11.2 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
<b>Dpnl</b>			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 402.6 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks

### 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	-	-

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

## Section 12. Ecological information

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.

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

#### **Classification**

5X SureSolution	FLAMMABLE LIQUIDS - Category 4
SureVector AmpR Selectable Marker	EYE IRRITATION - Category 2B
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 T7 <i>E. coli</i> Promoter	Not applicable.
SureVector Tac <i>E. coli</i> Promoter	Not applicable.
SureVector HIS6 <i>E. coli</i> Expression Tag (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

## Section 15. Regulatory information

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, SULFINYLBI-; 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.

#### 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.
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## Section 15. Regulatory information

<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>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>	: 03/28/2022
<b>Date of previous issue</b>	: 08/02/2019
<b>Version</b>	: 4

<b>Key to abbreviations</b>	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available UN = United Nations
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 Indicates information that has changed from previously issued version.

### Notice to reader

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