

# SAFETY DATA SHEET



SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C

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

### 1.1 Product identifier

**Product name** : SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C

**CAS number** : 5X SureSolution 67-68-5  
 SureVector AmpR Not applicable.  
 Selectable Marker  
 SureVector pUC Origin Not applicable.  
 SureVector XP1 Linker Not applicable.  
 SureVector Lacl Not applicable.  
 Repressor  
 SureVector T7 E. coli Promoter Not applicable.  
 SureVector Tac E. coli Promoter Not applicable.  
 SureVector Rhamnose E. coli Promoter Not applicable.  
 SureVector HIS6 Expression Tag C-Term Not applicable.  
 SureVector LacZ E. coli Control (C-term) Not applicable.  
 SureVector Enzyme Mix Not applicable.  
 10X SureVector Buffer Not applicable.  
 dNTP Mix Not applicable.  
 DpnI Not applicable.

**Part no. (chemical kit)** : G7518C

**Part no.** : 5X SureSolution 5190-8625  
 SureVector AmpR 5190-8807  
 Selectable Marker  
 SureVector pUC Origin 5190-8810  
 SureVector XP1 Linker 5190-8811  
 SureVector Lacl 5190-8812  
 Repressor  
 SureVector T7 E. coli Promoter 5190-8818  
 SureVector Tac E. coli Promoter 5190-8820  
 SureVector Rhamnose E. coli Promoter 5190-8822  
 SureVector HIS6 Expression Tag C-Term 5190-8823  
 SureVector LacZ E. coli Control (C-term) 5190-7819  
 SureVector Enzyme Mix 5190-8621  
 10X SureVector Buffer 5190-8622  
 dNTP Mix 200518-56  
 DpnI 5190-8624

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

**Material uses** : 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 Lacl Repressor	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)

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SureVector Rhamnose E. coli Promoter	0.01 ml (5 reactions)
SureVector HIS6 Expression Tag C-Term	0.01 ml (5 reactions)
SureVector LacZ E. coli Control (C-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

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

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

### 1.4 Emergency telephone number

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

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

<b>Product definition</b>	: 5X SureSolution	Mono-constituent substance
	SureVector AmpR	Mixture
	Selectable Marker	
	SureVector pUC Origin	Mixture
	SureVector XP1 Linker	Mixture
	SureVector LacI	Mixture
	Repressor	
	SureVector T7 E. coli Promoter	Mixture
	SureVector Tac E. coli Promoter	Mixture
	SureVector Rhamnose E. coli Promoter	Mixture
	SureVector HIS6 Expression Tag C-Term	Mixture
	SureVector LacZ E. coli Control (C-term)	Mixture
	SureVector Enzyme Mix	Mixture
	10X SureVector Buffer	Mixture
	dNTP Mix	Mixture
	DpnI	Mixture

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

#### 10X SureVector Buffer

H319 SERIOUS EYE DAMAGE/EYE IRRITATION Category 2

<b>Ingredients of unknown toxicity</b>	: SureVector Enzyme Mix	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%
	10X SureVector Buffer	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
		Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
	DpnI	Percentage of the mixture consisting of ingredient(s) of

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## SECTION 2: Hazards identification

unknown acute inhalation toxicity: 30 - 60%

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

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

### 2.2 Label elements

**Hazard pictograms** : 10X SureVector Buffer



**Signal word** : 5X SureSolution No signal word.  
SureVector AmpR No signal word.  
Selectable Marker  
SureVector pUC Origin No signal word.  
SureVector XP1 Linker No signal word.  
SureVector LacI No signal word.  
Repressor  
SureVector T7 E. coli Promoter No signal word.  
SureVector Tac E. coli Promoter No signal word.  
SureVector Rhamnose E. coli Promoter No signal word.  
SureVector HIS6 No signal word.  
Expression Tag C-Term  
SureVector LacZ E. coli Control (C-term) No signal word.  
SureVector Enzyme Mix No signal word.  
10X SureVector Buffer Warning  
dNTP Mix No signal word.  
DpnI No signal word.

**Hazard statements** : 5X SureSolution No known significant effects or critical hazards.  
SureVector AmpR No known significant effects or critical hazards.  
Selectable Marker  
SureVector pUC Origin No known significant effects or critical hazards.  
SureVector XP1 Linker No known significant effects or critical hazards.  
SureVector LacI No known significant effects or critical hazards.  
Repressor  
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 Rhamnose E. coli Promoter No known significant effects or critical hazards.  
SureVector HIS6 No known significant effects or critical hazards.  
Expression Tag C-Term  
SureVector LacZ E. coli Control (C-term) No known significant effects or critical hazards.  
SureVector Enzyme Mix No known significant effects or critical hazards.  
10X SureVector Buffer H319 - Causes serious eye irritation.  
dNTP Mix No known significant effects or critical hazards.  
DpnI No known significant effects or critical hazards.

### Precautionary statements



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## SECTION 2: Hazards identification

	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.
<b>Disposal</b>	: 5X SureSolution	Not applicable.
	SureVector AmpR	Not applicable.
	Selectable Marker	
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI	Not applicable.
	Repressor	
	SureVector T7 <i>E. coli</i>	Not applicable.
	Promoter	
	SureVector Tac <i>E. coli</i>	Not applicable.
	Promoter	
	SureVector Rhamnose <i>E. coli</i>	Not applicable.
	Promoter	
	SureVector HIS6	Not applicable.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	Not applicable.
	Control (C-term)	
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.
<b>Hazardous ingredients</b>	: SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	DpnI	Not applicable.
<b>Supplemental label elements</b>	: 5X SureSolution	Not applicable.
	SureVector AmpR	Not applicable.
	Selectable Marker	
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI	Not applicable.
	Repressor	
	SureVector T7 <i>E. coli</i>	Not applicable.
	Promoter	
	SureVector Tac <i>E. coli</i>	Not applicable.
	Promoter	
	SureVector Rhamnose <i>E. coli</i>	Not applicable.
	Promoter	
	SureVector HIS6	Not applicable.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	Not applicable.
	Control (C-term)	
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Safety data sheet available on request.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	: 5X SureSolution	Not applicable.
	SureVector AmpR	Not applicable.
	Selectable Marker	
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI	Not applicable.
	Repressor	
	SureVector T7 <i>E. coli</i>	Not applicable.
	Promoter	
	SureVector Tac <i>E. coli</i>	Not applicable.
	Promoter	
	SureVector Rhamnose <i>E. coli</i>	Not applicable.
	Promoter	

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**SECTION 2: Hazards identification**

SureVector HIS6	Not applicable.
Expression Tag C-Term	
SureVector LacZ E. coli	Not applicable.
Control (C-term)	
SureVector Enzyme Mix	Not applicable.
10X SureVector Buffer	Not applicable.
dNTP Mix	Not applicable.
DpnI	Not applicable.

**Special packaging requirements**

<b>Tactile warning of danger</b>	:	5X SureSolution	Not applicable.
		SureVector AmpR	Not applicable.
		Selectable Marker	
		SureVector pUC Origin	Not applicable.
		SureVector XP1 Linker	Not applicable.
		SureVector LacI	Not applicable.
		Repressor	
		SureVector T7 E. coli	Not applicable.
		Promoter	
		SureVector Tac E. coli	Not applicable.
		Promoter	
		SureVector Rhamnose E. coli	Not applicable.
		Promoter	
		SureVector HIS6	Not applicable.
		Expression Tag C-Term	
		SureVector LacZ E. coli	Not applicable.
		Control (C-term)	
		SureVector Enzyme Mix	Not applicable.
		10X SureVector Buffer	Not applicable.
		dNTP Mix	Not applicable.
	DpnI	Not applicable.	

**2.3 Other hazards**

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

	PBT	P	B	T	vPvB	vP	vB
<b>5X SureSolution</b>	No	N/A	No	No	No	N/A	No

SureVector AmpR	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Selectable Marker	
SureVector pUC Origin	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
SureVector XP1 Linker	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
SureVector LacI	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Repressor	
SureVector T7 E. coli	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Promoter	
SureVector Tac E. coli	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Promoter	
SureVector Rhamnose E. coli	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Promoter	
SureVector HIS6	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Expression Tag C-Term	
SureVector LacZ E. coli	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Control (C-term)	
SureVector Enzyme Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
10X SureVector Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
dNTP Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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**SECTION 2: Hazards identification**

DpnI This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** :

5X SureSolution	None known.
SureVector AmpR	None known.
Selectable Marker	
SureVector pUC Origin	None known.
SureVector XP1 Linker	None known.
SureVector LacI	None known.
Repressor	
SureVector T7 E. coli Promoter	None known.
SureVector Tac E. coli Promoter	None known.
SureVector Rhamnose E. coli Promoter	None known.
SureVector HIS6	None known.
Expression Tag C-Term	
SureVector LacZ E. coli Control (C-term)	None known.
SureVector Enzyme Mix	None known.
10X SureVector Buffer	None known.
dNTP Mix	None known.
DpnI	None known.

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

**3.1 Substances** :

5X SureSolution	Mono-constituent substance
SureVector AmpR Selectable Marker	Mixture
SureVector pUC Origin	Mixture
SureVector XP1 Linker	Mixture
SureVector LacI Repressor	Mixture
SureVector T7 E. coli Promoter	Mixture
SureVector Tac E. coli Promoter	Mixture
SureVector Rhamnose E. coli Promoter	Mixture
SureVector HIS6 Expression Tag C-Term	Mixture
SureVector LacZ E. coli Control (C-term)	Mixture
SureVector Enzyme Mix	Mixture
10X SureVector Buffer	Mixture
dNTP Mix	Mixture
DpnI	Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
<b>5X SureSolution</b> Dimethyl sulfoxide	EC: 200-664-3 CAS: 67-68-5	100	Not classified.	[A]
<b>SureVector Enzyme Mix</b> Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[2]
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	CAS: 9036-19-5	<0.25	Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1] [5]
<b>10X SureVector Buffer</b>				[1]

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

Ammonium sulphate	EC: 231-984-1 CAS: 7783-20-2	≤3	Eye Irrit. 2, H319	
Polyoxyethylene octyl phenyl ether	CAS: 9002-93-1	<2.5	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411	[1] [5]
<b>Dpnl</b> Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥50 - ≤75	Not classified.	[2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤3	Eye Irrit. 2, H319	[1]
<b>See Section 16 for the full text of the H statements declared above.</b>				

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

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

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

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

<b>Eye contact</b>	: 5X SureSolution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector AmpR Selectable Marker	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector pUC Origin	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector XP1 Linker	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector LacI Repressor	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector T7 E. coli Promoter	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector Tac E. coli Promoter	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector Rhamnose E. coli Promoter	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector HIS6 Expression Tag C-Term	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove

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		any contact lenses. Get medical attention if irritation occurs. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector LacZ E. coli Control (C-term)	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector Enzyme Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	10X SureVector Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	dNTP Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Dpnl	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Inhalation</b>	: 5X SureSolution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	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 E. coli Promoter	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	SureVector Tac E. coli Promoter	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	SureVector Rhamnose E. coli Promoter	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	SureVector HIS6 Expression Tag C-Term	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	SureVector LacZ E. coli Control (C-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. Get medical attention if symptoms occur.
	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

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		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. Get medical attention if symptoms occur.
<b>Skin contact</b>	: 5X SureSolution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	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 E. coli Promoter	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector Tac E. coli Promoter	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector Rhamnose E. coli Promoter	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector HIS6 Expression Tag C-Term	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector LacZ E. coli Control (C-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.
<b>Ingestion</b>	: 5X SureSolution	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 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

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	of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector XP1 Linker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector LacI Repressor	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector T7 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 Rhamnose 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 Expression Tag C-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 LacZ E. coli Control (C-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. 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.
10X SureVector Buffer	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
dNTP Mix	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
DpnI	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

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		do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	: 5X SureSolution	No action shall be taken involving any personal risk or without suitable training.
	SureVector AmpR	No action shall be taken involving any personal risk or without suitable training.
	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	No action shall be taken involving any personal risk or without suitable training.
	Repressor	No action shall be taken involving any personal risk or without suitable training.
	SureVector T7 E. coli Promoter	No action shall be taken involving any personal risk or without suitable training.
	SureVector Tac E. coli Promoter	No action shall be taken involving any personal risk or without suitable training.
	SureVector Rhamnose E. coli Promoter	No action shall be taken involving any personal risk or without suitable training.
	SureVector HIS6	No action shall be taken involving any personal risk or without suitable training.
	Expression Tag C-Term	No action shall be taken involving any personal risk or without suitable training.
	SureVector LacZ E. coli Control (C-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.
	10X SureVector Buffer	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	dNTP Mix	No action shall be taken involving any personal risk or without suitable training.
	DpnI	No action shall be taken involving any personal risk or without suitable training.

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

**Potential acute health effects**

<b>Eye contact</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR	No known significant effects or critical hazards.
	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	No known significant effects or critical hazards.
	Repressor	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 Rhamnose E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6	No known significant effects or critical hazards.
	Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector LacZ E. coli Control (C-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	Causes serious eye irritation.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.



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## SECTION 4: First aid measures

### Over-exposure signs/symptoms

<b>Eye 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 E. coli Promoter	No specific data.	
		SureVector Tac E. coli Promoter	No specific data.	
		SureVector Rhamnose E. coli Promoter	No specific data.	
		SureVector HIS6 Expression Tag C-Term	No specific data.	
		SureVector LacZ E. coli Control (C-term)	No specific data.	
		SureVector Enzyme Mix 10X SureVector Buffer	No specific data. Adverse symptoms may include the following: pain or irritation watering redness	
		dNTP Mix	No specific data.	
		DpnI	No specific data.	
	<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 E. coli Promoter	No specific data.
			SureVector Tac E. coli Promoter	No specific data.
		SureVector Rhamnose E. coli Promoter	No specific data.	
		SureVector HIS6 Expression Tag C-Term	No specific data.	
		SureVector LacZ E. coli Control (C-term)	No specific data.	
		SureVector Enzyme Mix 10X SureVector Buffer	No specific data. 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 E. coli Promoter	No specific data.
			SureVector Tac E. coli Promoter	No specific data.
		SureVector Rhamnose E. coli Promoter	No specific data.	
		SureVector HIS6 Expression Tag C-Term	No specific data.	
		SureVector LacZ E. coli	No specific data.	

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	Control (C-term)	
	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	No specific data.
	Selectable Marker	
	SureVector pUC Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector LacI	No specific data.
	Repressor	
	SureVector T7 E. coli	No specific data.
	Promoter	
	SureVector Tac E. coli	No specific data.
	Promoter	
	SureVector Rhamnose E. coli	No specific data.
	Promoter	
	SureVector HIS6	No specific data.
	Expression Tag C-Term	
	SureVector LacZ E. coli	No specific data.
	Control (C-term)	
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.

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

<b>Notes to physician</b>	: 5X SureSolution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector AmpR	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	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	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Repressor	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector T7 E. coli	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Promoter	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector Tac E. coli	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Promoter	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector Rhamnose E. coli	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Promoter	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector HIS6	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Expression Tag C-Term	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector LacZ E. coli	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Control (C-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.

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**SECTION 4: First aid measures**

<b>Specific treatments</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector Lacl Repressor SureVector T7 E. coli Promoter SureVector Tac E. coli Promoter SureVector Rhamnose E. coli Promoter SureVector HIS6 Expression Tag C-Term SureVector LacZ E. coli Control (C-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	No specific treatment. No specific treatment.  No specific treatment. No specific treatment. No specific treatment.  No specific treatment.  No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
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**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

<b>Suitable extinguishing media</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector Lacl Repressor SureVector T7 E. coli Promoter SureVector Tac E. coli Promoter SureVector Rhamnose E. coli Promoter SureVector HIS6 Expression Tag C-Term SureVector LacZ E. coli Control (C-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.  Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.  Use an extinguishing agent suitable for the surrounding fire.  Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector Lacl Repressor SureVector T7 E. coli Promoter SureVector Tac E. coli Promoter SureVector Rhamnose E. coli Promoter SureVector HIS6 Expression Tag C-Term SureVector LacZ E. coli Control (C-term)	None known. None known.  None known. None known. None known.  None known.  None known. None known. None known. None known. None known. None known. None known. None known. None known.

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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

#### Hazards from the substance or mixture

: 5X SureSolution	In a fire or if heated, a pressure increase will occur and the container may burst.
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 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 Rhamnose E. coli Promoter	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector HIS6 Expression Tag C-Term	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector LacZ E. coli Control (C-term)	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector Enzyme Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
10X SureVector Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
dNTP Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
DpnI	In a fire or if heated, a pressure increase will occur and the container may burst.

#### Hazardous combustion products

: 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 E. coli Promoter	No specific data.
SureVector Tac E. coli Promoter	No specific data.
SureVector Rhamnose E. coli Promoter	No specific data.
SureVector HIS6 Expression Tag C-Term	No specific data.
SureVector LacZ E. coli Control (C-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

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**SECTION 5: Firefighting measures**

dNTP Mix DpnI	halogenated compounds metal oxide/oxides No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
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**5.3 Advice for firefighters**

**Special precautions 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.
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 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 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 Rhamnose 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 Expression Tag C-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 LacZ E. coli Control (C-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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves)

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SureVector pUC Origin	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureVector XP1 Linker	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureVector LacI Repressor	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureVector T7 E. coli Promoter	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureVector Tac E. coli Promoter	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureVector Rhamnose E. coli Promoter	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureVector HIS6 Expression Tag C-Term	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureVector LacZ E. coli Control (C-term)	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureVector Enzyme Mix	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
10X SureVector Buffer	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
dNTP Mix	conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment

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## SECTION 5: Firefighting measures

Dpnl

and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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

## SECTION 6: Accidental release measures

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

**For non-emergency personnel**

: 5X SureSolution

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

SureVector AmpR Selectable Marker

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

SureVector pUC Origin

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

SureVector XP1 Linker

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

SureVector Rhamnose *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 spilt material. Put on appropriate personal protective equipment.

SureVector HIS6 Expression Tag C-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 spilt material. Put on appropriate personal protective equipment.

SureVector LacZ *E. coli* Control (C-term)

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering.

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## SECTION 6: Accidental release measures

		Do not touch or walk through spilt 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 spilt material. Put on appropriate personal protective equipment.
	10X SureVector Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour 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 spilt 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 spilt material. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: 5X SureSolution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureVector AmpR Selectable Marker	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureVector pUC Origin	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureVector XP1 Linker	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureVector LacI Repressor	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureVector T7 <i>E. coli</i> Promoter	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureVector Tac <i>E. coli</i> Promoter	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureVector Rhamnose <i>E. coli</i> Promoter	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureVector HIS6 Expression Tag C-Term	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	SureVector LacZ <i>E. coli</i> Control (C-term)	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-

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**SECTION 6: Accidental release measures**

SureVector Enzyme Mix	emergency personnel". If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
10X SureVector Buffer	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
dNTP Mix	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
DpnI	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions**

: 5X SureSolution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector AmpR Selectable Marker	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector pUC Origin	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector XP1 Linker	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector LacI Repressor	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector T7 E. coli Promoter	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector Tac E. coli Promoter	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector Rhamnose E. coli Promoter	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector HIS6 Expression Tag C-Term	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector LacZ E. coli Control (C-term)	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector Enzyme Mix	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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## SECTION 6: Accidental release measures

10X SureVector Buffer	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
dNTP Mix	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Dpnl	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

Methods for cleaning up : 5X SureSolution

5X SureSolution	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 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.
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 Rhamnose <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 Expression Tag C-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 LacZ <i>E. coli</i> Control (C-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

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**SECTION 6: Accidental release measures**

	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. May be harmful to the environment if released. Dispose of spillages under controlled conditions.
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. May be harmful to the environment if released. Dispose of spillages under controlled conditions.
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.

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

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

<b>Protective measures</b>	5X SureSolution	Put on appropriate personal protective equipment (see Section 8).
	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 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 Rhamnose E. coli Promoter	Put on appropriate personal protective equipment (see Section 8).
	SureVector HIS6 Expression Tag C-Term	Put on appropriate personal protective equipment (see Section 8).
	SureVector LacZ E. coli Control (C-term)	Put on appropriate personal protective equipment (see Section 8).
	SureVector Enzyme Mix	Put on appropriate personal protective equipment (see Section 8).
	10X SureVector Buffer	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	dNTP Mix	Put on appropriate personal protective equipment (see

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**SECTION 7: Handling and storage**

**Advice on general occupational hygiene**

DpnI	Section 8). Put on appropriate personal protective equipment (see Section 8).
: 5X SureSolution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector AmpR Selectable Marker	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector pUC Origin	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector XP1 Linker	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector LacI Repressor	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector T7 E. coli Promoter	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector Tac E. coli Promoter	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector Rhamnose E. coli Promoter	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector HIS6 Expression Tag C-Term	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector LacZ E. coli Control (C-term)	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also

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SureVector Enzyme Mix	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.
10X SureVector Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
dNTP Mix	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
DpnI	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**

<b>Storage</b>	: 5X SureSolution	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
SureVector AmpR Selectable Marker		Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
SureVector pUC Origin		Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled 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

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	been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
SureVector T7 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
SureVector Tac 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
SureVector Rhamnose 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
SureVector HIS6 Expression Tag C-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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
SureVector LacZ E. coli Control (C-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 unlabelled containers. Use appropriate containment to avoid environmental

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

**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 E. coli Promoter	Industrial applications, Professional applications.
SureVector Tac E. coli Promoter	Industrial applications, Professional applications.
SureVector Rhamnose E. coli Promoter	Industrial applications, Professional applications.
SureVector HIS6 Expression Tag C-Term	Industrial applications, Professional applications.
SureVector LacZ E. coli Control (C-term)	Industrial applications, Professional applications.
SureVector Enzyme Mix	Industrial applications, Professional applications.

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	10X SureVector Buffer	Industrial applications, Professional applications.
	dNTP Mix	Industrial applications, Professional applications.
	DpnI	Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: 5X SureSolution	Not available.
	SureVector AmpR	Not available.
	Selectable Marker	
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI	Not available.
	Repressor	
	SureVector T7 E. coli Promoter	Not available.
	SureVector Tac E. coli Promoter	Not available.
	SureVector Rhamnose E. coli Promoter	Not available.
	SureVector HIS6	Not available.
	Expression Tag C-Term	
	SureVector LacZ E. coli Control (C-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

Product/ingredient name	Exposure limit values
<b>SureVector Enzyme Mix</b> Glycerol	<b>NAOSH (Ireland, 1/2020).</b> OELV-8hr: 10 mg/m <sup>3</sup> 8 hours. Form: mist
<b>DpnI</b> Glycerol	<b>NAOSH (Ireland, 1/2020).</b> OELV-8hr: 10 mg/m <sup>3</sup> 8 hours. Form: mist

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

#### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
<b>5X SureSolution</b> Dimethyl sulfoxide	DNEL	Long term Inhalation	47 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Oral	60 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	100 mg/kg bw/day	General population	Systemic
	DNEL	Long term	120 mg/m <sup>3</sup>	General	Systemic

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<b>10X SureVector Buffer</b> Ammonium sulphate	DNEL	Inhalation Long term Dermal	200 mg/kg bw/day	population Workers	Systemic
	DNEL	Long term Inhalation	265 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	484 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	1.667 mg/ m <sup>3</sup>	General population	Systemic
	DNEL	Long term Oral	6.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	11.167 mg/ m <sup>3</sup>	Workers	Systemic
<b>Dpnl</b> Sodium chloride	DNEL	Long term Dermal	12.8 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	42.667 mg/ kg bw/day	Workers	Systemic
	DNEL	Short term Oral	126.65 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Oral	126.65 mg/ kg bw/day	General population	Systemic
	DNEL	Short term Dermal	126.65 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Dermal	126.65 mg/ kg bw/day	General population	Systemic
	DNEL	Short term Dermal	295.52 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	295.52 mg/ kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	443.28 mg/ m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	443.28 mg/ m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	2068.62 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	2068.62 mg/m <sup>3</sup>	Workers	Systemic

**PNECs**

No PNECs available

**8.2 Exposure controls**

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

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

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

**Skin protection**

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

## SECTION 9: Physical and chemical properties

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

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: 5X SureSolution	Liquid. [Clear.]
	SureVector AmpR	Liquid.
	Selectable Marker	
	SureVector pUC Origin	Liquid.
	SureVector XP1 Linker	Liquid.
	SureVector LacI	Liquid.
	Repressor	
	SureVector T7 <i>E. coli</i>	Liquid.
	Promoter	
	SureVector Tac <i>E. coli</i>	Liquid.
	Promoter	
	SureVector Rhamnose <i>E. coli</i>	Liquid.
	Promoter	
	SureVector HIS6	Liquid.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	Liquid.
	Control (C-term)	
	SureVector Enzyme Mix	Liquid.
	10X SureVector Buffer	Liquid.
	dNTP Mix	Liquid.
DpnI	Liquid.	
<b>Colour</b>	: 5X SureSolution	Blue.
	SureVector AmpR	Not available.
	Selectable Marker	
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI	Not available.
	Repressor	
	SureVector T7 <i>E. coli</i>	Not available.
	Promoter	
	SureVector Tac <i>E. coli</i>	Not available.
	Promoter	
	SureVector Rhamnose <i>E. coli</i>	Not available.
	Promoter	
	SureVector HIS6	Not available.
Expression Tag C-Term		
SureVector LacZ <i>E. coli</i>	Not available.	

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	Control (C-term)	
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
<b>Odour</b>	: 5X SureSolution	Odourless. [Slight]
	SureVector AmpR	Not available.
	Selectable Marker	
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI	Not available.
	Repressor	
	SureVector T7 <i>E. coli</i>	Not available.
	Promoter	
	SureVector Tac <i>E. coli</i>	Not available.
	Promoter	
	SureVector Rhamnose <i>E. coli</i>	Not available.
	Promoter	
	SureVector HIS6	Not available.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	Not available.
	Control (C-term)	
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
<b>Odour threshold</b>	: 5X SureSolution	Not available.
	SureVector AmpR	Not available.
	Selectable Marker	
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI	Not available.
	Repressor	
	SureVector T7 <i>E. coli</i>	Not available.
	Promoter	
	SureVector Tac <i>E. coli</i>	Not available.
	Promoter	
	SureVector Rhamnose <i>E. coli</i>	Not available.
	Promoter	
	SureVector HIS6	Not available.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	Not available.
	Control (C-term)	
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
<b>Melting point/freezing point</b>	: 5X SureSolution	18.5°C
	SureVector AmpR	0°C
	Selectable Marker	
	SureVector pUC Origin	0°C
	SureVector XP1 Linker	0°C
	SureVector LacI	0°C
	Repressor	
	SureVector T7 <i>E. coli</i>	0°C
	Promoter	
	SureVector Tac <i>E. coli</i>	0°C
	Promoter	
	SureVector Rhamnose <i>E. coli</i>	0°C
	Promoter	
	SureVector HIS6	0°C
	Expression Tag C-Term	

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	SureVector LacZ E. coli Control (C-term)	0°C
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	0°C
	DpnI	Not available.
<b>Initial boiling point and boiling range</b>	: 5X SureSolution	189°C (372.2°F)
	SureVector AmpR	100°C (212°F)
	Selectable Marker	
	SureVector pUC Origin	100°C (212°F)
	SureVector XP1 Linker	100°C (212°F)
	SureVector LacI	100°C (212°F)
	Repressor	
	SureVector T7 E. coli Promoter	100°C (212°F)
	SureVector Tac E. coli Promoter	100°C (212°F)
	SureVector Rhamnose E. coli Promoter	100°C (212°F)
	SureVector HIS6	100°C (212°F)
	Expression Tag C-Term	
	SureVector LacZ E. coli Control (C-term)	100°C (212°F)
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	100°C (212°F)
	DpnI	Not available.
<b>Flammability (solid, gas)</b>	: 5X SureSolution	Not applicable.
	SureVector AmpR	Not applicable.
	Selectable Marker	
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI	Not applicable.
	Repressor	
	SureVector T7 E. coli Promoter	Not applicable.
	SureVector Tac E. coli Promoter	Not applicable.
	SureVector Rhamnose E. coli Promoter	Not applicable.
	SureVector HIS6	Not applicable.
	Expression Tag C-Term	
	SureVector LacZ E. coli Control (C-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: 5X SureSolution	Lower: 2.6% Upper: 28.5%
	SureVector AmpR	Not available.
	Selectable Marker	
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI	Not available.
	Repressor	
	SureVector T7 E. coli Promoter	Not available.
	SureVector Tac E. coli Promoter	Not available.
	SureVector Rhamnose E. coli Promoter	Not available.

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**SECTION 9: Physical and chemical properties**

SureVector HIS6	Not available.
Expression Tag C-Term	
SureVector LacZ E. coli Control (C-term)	Not available.
SureVector Enzyme Mix	Not available.
10X SureVector Buffer	Not available.
dNTP Mix	Not available.
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 E. coli Promoter	Not available.
SureVector Tac E. coli Promoter	Not available.
SureVector Rhamnose E. coli Promoter	Not available.
SureVector HIS6	Not available.
Expression Tag C-Term	
SureVector LacZ E. coli Control (C-term)	Not available.
SureVector Enzyme Mix	Not available.
10X SureVector Buffer	Not available.
dNTP Mix	Not available.
DpnI	Not available.

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

**SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C**

**SECTION 9: Physical and chemical properties**

Edetic acid	>100	>212	DIN 51758			
<b>SureVector HIS6 Expression Tag C-Term</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector LacZ E. coli Control (C-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>DpnI</b>						
Edetic acid	>100	>212	DIN 51758			
(R*,R*)-1,4-Dimercaptobutane-2,3-diol	>110	>230				

**Auto-ignition temperature**

: 5X SureSolution	300 to 302°C (572 to 575.6°F)
SureVector AmpR	Not available.
Selectable Marker	
SureVector pUC Origin	Not available.
SureVector XP1 Linker	Not available.
SureVector Lacl	Not available.
Repressor	
SureVector T7 E. coli Promoter	Not available.
SureVector Tac E. coli Promoter	Not available.
SureVector Rhamnose E. coli Promoter	Not available.
SureVector HIS6 Expression Tag C-Term	Not available.
SureVector LacZ E. coli Control (C-term)	Not available.
SureVector Enzyme Mix	Not available.
10X SureVector Buffer	Not available.
dNTP Mix	Not available.
DpnI	Not available.

SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C

**SECTION 9: Physical and chemical properties**

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 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 Rhamnose E. coli Promoter</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector HIS6 Expression Tag C-Term</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector LacZ E. coli Control (C-term)</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector Enzyme Mix</b>			
Glycerol	370	698	
Edetic acid	>400	>752	VDI 2263
<b>dNTP Mix</b>			
Edetic acid	>400	>752	VDI 2263
<b>Dpnl</b>			
Glycerol	370	698	
Edetic acid	>400	>752	VDI 2263

**Decomposition temperature**

- : 5X SureSolution 140 to 189°C
- SureVector AmpR Selectable Marker Not available.
- SureVector pUC Origin Not available.
- SureVector XP1 Linker Not available.
- SureVector LacI Repressor Not available.
- SureVector T7 E. coli Promoter Not available.
- SureVector Tac E. coli Promoter Not available.

**SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C**

**SECTION 9: Physical and chemical properties**

		SureVector Rhamnose E. coli Promoter	Not available.
		SureVector HIS6 Expression Tag C-Term	Not available.
		SureVector LacZ E. coli Control (C-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 E. coli Promoter	8
		SureVector Tac E. coli Promoter	8
		SureVector Rhamnose E. coli Promoter	8
		SureVector HIS6 Expression Tag C-Term	8
		SureVector LacZ E. coli Control (C-term)	8
		SureVector Enzyme Mix	8.2
		10X SureVector Buffer	8.8
		dNTP Mix	7.5
		DpnI	7.5
<b>Viscosity</b>	:	5X SureSolution	Dynamic: 2.14 mPa·s
		SureVector AmpR Selectable Marker	Not available.
		SureVector pUC Origin	Not available.
		SureVector XP1 Linker	Not available.
		SureVector LacI Repressor	Not available.
		SureVector T7 E. coli Promoter	Not available.
		SureVector Tac E. coli Promoter	Not available.
		SureVector Rhamnose E. coli Promoter	Not available.
		SureVector HIS6 Expression Tag C-Term	Not available.
		SureVector LacZ E. coli Control (C-term)	Not available.
		SureVector Enzyme Mix	Not available.
		10X SureVector Buffer	Not available.
		dNTP Mix	Not available.
		DpnI	Not available.
<b>Solubility(ies)</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 *E. coli* C-terminal Promoter kit, 5 rxn, Part Number G7518C

## SECTION 9: Physical and chemical properties

SureVector T7 <i>E. coli</i> Promoter	Easily soluble in the following materials: cold water and hot water.
SureVector Tac <i>E. coli</i> Promoter	Easily soluble in the following materials: cold water and hot water.
SureVector Rhamnose <i>E. coli</i> Promoter	Easily soluble in the following materials: cold water and hot water.
SureVector HIS6 Expression Tag C-Term	Easily soluble in the following materials: cold water and hot water.
SureVector LacZ <i>E. coli</i> Control (C-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.

### Partition coefficient: n-octanol/water

: 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 <i>E. coli</i> Promoter	Not applicable.
SureVector Tac <i>E. coli</i> Promoter	Not applicable.
SureVector Rhamnose <i>E. coli</i> Promoter	Not applicable.
SureVector HIS6 Expression Tag C-Term	Not applicable.
SureVector LacZ <i>E. coli</i> Control (C-term)	Not applicable.
SureVector Enzyme Mix	Not applicable.
10X SureVector Buffer	Not applicable.
dNTP Mix	Not applicable.
DpnI	Not applicable.

### Vapour pressure

: 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 <i>E. coli</i> Promoter	Not available.
SureVector Tac <i>E. coli</i> Promoter	Not available.
SureVector Rhamnose <i>E. coli</i> Promoter	Not available.
SureVector HIS6 Expression Tag C-Term	Not available.
SureVector LacZ <i>E. coli</i> Control (C-term)	Not available.
SureVector Enzyme Mix	Not available.
10X SureVector Buffer	Not available.
dNTP Mix	Not available.
DpnI	Not available.

**SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C**

**SECTION 9: Physical and chemical properties**

Ingredient name	Vapour Pressure at 20°C			Vapour 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 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	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	
<b>SureVector Rhamnose 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 HIS6 Expression Tag C-Term</b>						
Water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-	0.000027	0.0000036		0.000007501	0.000001	

**SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C**

**SECTION 9: Physical and chemical properties**

1,3-diol hydrochloride					
<b>SureVector LacZ E. coli Control (C-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

<b>Evaporation rate</b>	:	5X SureSolution	0.026 (butyl acetate = 1)
		SureVector AmpR	Not available.
		Selectable Marker	
		SureVector pUC Origin	Not available.
		SureVector XP1 Linker	Not available.
		SureVector Lacl	Not available.
		Repressor	
		SureVector T7 E. coli Promoter	Not available.
		SureVector Tac E. coli Promoter	Not available.
		SureVector Rhamnose E. coli Promoter	Not available.
		SureVector HIS6	Not available.
		Expression Tag C-Term	
		SureVector LacZ E. coli Control (C-term)	Not available.
		SureVector Enzyme Mix	Not available.
		10X SureVector Buffer	Not available.
		dNTP Mix	Not available.
		Dpnl	Not available.
<b>Relative density</b>	:	5X SureSolution	1.1
		SureVector AmpR	Not available.
		Selectable Marker	
		SureVector pUC Origin	Not available.
		SureVector XP1 Linker	Not available.
		SureVector Lacl	Not available.
		Repressor	
		SureVector T7 E. coli	Not available.

**SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C**

## SECTION 9: Physical and chemical properties

	Promoter	
	SureVector Tac E. coli Promoter	Not available.
	SureVector Rhamnose E. coli Promoter	Not available.
	SureVector HIS6 Expression Tag C-Term	Not available.
	SureVector LacZ E. coli Control (C-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
<b>Vapour density</b>	: 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 E. coli Promoter	Not available.
	SureVector Tac E. coli Promoter	Not available.
	SureVector Rhamnose E. coli Promoter	Not available.
	SureVector HIS6 Expression Tag C-Term	Not available.
	SureVector LacZ E. coli Control (C-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
<b>Oxidising properties</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 E. coli Promoter	Not available.
	SureVector Tac E. coli Promoter	Not available.
	SureVector Rhamnose E. coli Promoter	Not available.
	SureVector HIS6 Expression Tag C-Term	Not available.
	SureVector LacZ E. coli Control (C-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.

### Particle characteristics

**SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C**

## SECTION 9: Physical and chemical properties

<b>Median particle size</b>	: 5X SureSolution	Not applicable.
	SureVector AmpR	Not applicable.
	Selectable Marker	
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector Lacl	Not applicable.
	Repressor	
	SureVector T7 E. coli	Not applicable.
	Promoter	
	SureVector Tac E. coli	Not applicable.
	Promoter	
	SureVector Rhamnose E. coli	Not applicable.
	Promoter	
	SureVector HIS6	Not applicable.
	Expression Tag C-Term	
	SureVector LacZ E. coli	Not applicable.
	Control (C-term)	
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	Dpnl	Not applicable.

### 9.2 Other information

No additional information.

## 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	No specific test data related to reactivity available for this product or its ingredients.
	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 Lacl	No specific test data related to reactivity available for this product or its ingredients.
	Repressor	No specific test data related to reactivity available for this product or its ingredients.
	SureVector T7 E. coli	No specific test data related to reactivity available for this product or its ingredients.
	Promoter	No specific test data related to reactivity available for this product or its ingredients.
	SureVector Tac E. coli	No specific test data related to reactivity available for this product or its ingredients.
	Promoter	No specific test data related to reactivity available for this product or its ingredients.
	SureVector Rhamnose E. coli	No specific test data related to reactivity available for this product or its ingredients.
	Promoter	No specific test data related to reactivity available for this product or its ingredients.
	SureVector HIS6	No specific test data related to reactivity available for this product or its ingredients.
	Expression Tag C-Term	No specific test data related to reactivity available for this product or its ingredients.
	SureVector LacZ E. coli	No specific test data related to reactivity available for this product or its ingredients.
	Control (C-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.
	Dpnl	No specific test data related to reactivity available for this product or its ingredients.

**SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C**

## SECTION 10: Stability and reactivity

<b>10.2 Chemical stability</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7 E. coli Promoter SureVector Tac E. coli Promoter SureVector Rhamnose E. coli Promoter SureVector HIS6 Expression Tag C-Term SureVector LacZ E. coli Control (C-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: 5X SureSolution  SureVector AmpR Selectable Marker SureVector pUC Origin  SureVector XP1 Linker  SureVector LacI Repressor SureVector T7 E. coli Promoter SureVector Tac E. coli Promoter SureVector Rhamnose E. coli Promoter SureVector HIS6 Expression Tag C-Term SureVector LacZ E. coli Control (C-term) SureVector Enzyme Mix  10X SureVector Buffer  dNTP Mix  DpnI	Under normal conditions of storage and use, hazardous reactions will not occur.  Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.  Under normal conditions of storage and use, hazardous reactions will not occur.  Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7 E. coli Promoter SureVector Tac E. coli Promoter	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C

## SECTION 10: Stability and reactivity

SureVector Rhamnose E. coli Promoter	No specific data.
SureVector HIS6 Expression Tag C-Term	No specific data.
SureVector LacZ E. coli Control (C-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.

### 10.5 Incompatible materials

: 5X SureSolution	May react or be incompatible with oxidising materials.
SureVector AmpR Selectable Marker	May react or be incompatible with oxidising materials.
SureVector pUC Origin	May react or be incompatible with oxidising materials.
SureVector XP1 Linker	May react or be incompatible with oxidising materials.
SureVector LacI Repressor	May react or be incompatible with oxidising materials.
SureVector T7 E. coli Promoter	May react or be incompatible with oxidising materials.
SureVector Tac E. coli Promoter	May react or be incompatible with oxidising materials.
SureVector Rhamnose E. coli Promoter	May react or be incompatible with oxidising materials.
SureVector HIS6 Expression Tag C-Term	May react or be incompatible with oxidising materials.
SureVector LacZ E. coli Control (C-term)	May react or be incompatible with oxidising materials.
SureVector Enzyme Mix	May react or be incompatible with oxidising materials.
10X SureVector Buffer	May react or be incompatible with oxidising materials.
dNTP Mix	May react or be incompatible with oxidising materials.
DpnI	May react or be incompatible with oxidising materials.

### 10.6 Hazardous decomposition products

: 5X SureSolution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector AmpR Selectable Marker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector 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 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 Rhamnose E. coli Promoter	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector HIS6 Expression Tag C-Term	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector LacZ E. coli Control (C-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.

SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C

## 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> 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> Ammonium sulphate Polyoxyethylene octyl phenyl ether	LD50 Oral LD50 Oral	Rat Rat	2840 mg/kg 1800 mg/kg	- -
<b>Dpnl</b> Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
<b>5X SureSolution</b> Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A
<b>SureVector Enzyme Mix</b> 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 Ammonium sulphate Polyoxyethylene octyl phenyl ether	180000 2840 1800	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A
<b>Dpnl</b> Sodium chloride	3000	N/A	N/A	N/A	N/A

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>5X SureSolution</b> Dimethyl sulfoxide	Eyes - Mild irritant Eyes - Mild irritant Skin - Mild irritant Skin - Mild irritant	Rabbit Rabbit Rabbit Rabbit	- - - -	24 hours 500 mg 100 mg 24 hours 500 mg 100 mg	- - - -
<b>SureVector Enzyme Mix</b> Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Eyes - Severe irritant	Rabbit	-	1 %	-
<b>10X SureVector Buffer</b> Polyoxyethylene octyl phenyl ether	Skin - Mild irritant	Rabbit	-	24 hours 500 uL	-

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## SECTION 11: Toxicological information

Dpnl Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

### Sensitiser

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on likely routes of exposure

5X SureSolution	Routes of entry anticipated: Oral, Dermal, Inhalation.
SureVector AmpR	Not available.
Selectable Marker	
SureVector pUC Origin	Not available.
SureVector XP1 Linker	Not available.
SureVector LacI	Not available.
Repressor	
SureVector T7 E. coli Promoter	Not available.
SureVector Tac E. coli Promoter	Not available.
SureVector Rhamnose E. coli Promoter	Not available.
SureVector HIS6	Not available.
Expression Tag C-Term	
SureVector LacZ E. coli Control (C-term)	Not available.
SureVector Enzyme Mix	Routes of entry anticipated: Oral, Dermal, Inhalation.
10X SureVector Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
dNTP Mix	Not available.
Dpnl	Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

<b>Inhalation</b>	5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR	No known significant effects or critical hazards.
	Selectable Marker	
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI	No known significant effects or critical hazards.
	Repressor	
	SureVector T7 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli Promoter	No known significant effects or critical hazards.

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	SureVector Rhamnose <i>E. coli</i> Promoter	No known significant effects or critical hazards.
	SureVector HIS6 Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector LacZ <i>E. coli</i> Control (C-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 <i>E. coli</i> Promoter	No known significant effects or critical hazards.
	SureVector Tac <i>E. coli</i> Promoter	No known significant effects or critical hazards.
	SureVector Rhamnose <i>E. coli</i> Promoter	No known significant effects or critical hazards.
	SureVector HIS6 Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector LacZ <i>E. coli</i> Control (C-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>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 <i>E. coli</i> Promoter	No known significant effects or critical hazards.
	SureVector Tac <i>E. coli</i> Promoter	No known significant effects or critical hazards.
	SureVector Rhamnose <i>E. coli</i> Promoter	No known significant effects or critical hazards.
	SureVector HIS6 Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector LacZ <i>E. coli</i> Control (C-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>Eye 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 <i>E. coli</i> Promoter	No known significant effects or critical hazards.
	SureVector Tac <i>E. coli</i>	No known significant effects or critical hazards.

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## SECTION 11: Toxicological information

Promoter	
SureVector Rhamnose E. coli Promoter	No known significant effects or critical hazards.
SureVector HIS6 Expression Tag C-Term	No known significant effects or critical hazards.
SureVector LacZ E. coli Control (C-term)	No known significant effects or critical hazards.
SureVector Enzyme Mix	No known significant effects or critical hazards.
10X SureVector Buffer	Causes serious eye irritation.
dNTP Mix	No known significant effects or critical hazards.
DpnI	No known significant effects or critical hazards.

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

<b>Inhalation</b>	:	5X SureSolution	No specific data.
		SureVector AmpR	No specific data.
		Selectable Marker	
		SureVector pUC Origin	No specific data.
		SureVector XP1 Linker	No specific data.
		SureVector LacI	No specific data.
		Repressor	
		SureVector T7 E. coli Promoter	No specific data.
		SureVector Tac E. coli Promoter	No specific data.
		SureVector Rhamnose E. coli Promoter	No specific data.
		SureVector HIS6	No specific data.
		Expression Tag C-Term	
		SureVector LacZ E. coli Control (C-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	No specific data.
		Selectable Marker	
		SureVector pUC Origin	No specific data.
		SureVector XP1 Linker	No specific data.
		SureVector LacI	No specific data.
		Repressor	
		SureVector T7 E. coli Promoter	No specific data.
		SureVector Tac E. coli Promoter	No specific data.
		SureVector Rhamnose E. coli Promoter	No specific data.
		SureVector HIS6	No specific data.
		Expression Tag C-Term	
		SureVector LacZ E. coli Control (C-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	No specific data.
		Selectable Marker	
		SureVector pUC Origin	No specific data.
		SureVector XP1 Linker	No specific data.
		SureVector LacI	No specific data.
		Repressor	
		SureVector T7 E. coli	No specific data.

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## SECTION 11: Toxicological information

	Promoter	
	SureVector Tac E. coli	No specific data.
	Promoter	
	SureVector Rhamnose E. coli	No specific data.
	Promoter	
	SureVector HIS6	No specific data.
	Expression Tag C-Term	
	SureVector LacZ E. coli	No specific data.
	Control (C-term)	
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.
<b>Eye contact</b>	: 5X SureSolution	No specific data.
	SureVector AmpR	No specific data.
	Selectable Marker	
	SureVector pUC Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector LacI	No specific data.
	Repressor	
	SureVector T7 E. coli	No specific data.
	Promoter	
	SureVector Tac E. coli	No specific data.
	Promoter	
	SureVector Rhamnose E. coli	No specific data.
	Promoter	
	SureVector HIS6	No specific data.
	Expression Tag C-Term	
	SureVector LacZ E. coli	No specific data.
	Control (C-term)	
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	Adverse symptoms may include the following: pain or irritation watering redness
	dNTP Mix	No specific data.
	DpnI	No specific data.

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

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

<b>General</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR	No known significant effects or critical hazards.
	Selectable Marker	
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI	No known significant effects or critical hazards.
	Repressor	
	SureVector T7 E. coli	No known significant effects or critical hazards.
	Promoter	
	SureVector Tac E. coli	No known significant effects or critical hazards.
	Promoter	

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## SECTION 11: Toxicological information

	SureVector Rhamnose E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6 Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector LacZ E. coli Control (C-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector 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 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
	SureVector Rhamnose E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6 Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector LacZ E. coli Control (C-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 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli Promoter	No known significant effects or critical hazards.
	SureVector Rhamnose E. coli Promoter	No known significant effects or critical hazards.
	SureVector HIS6 Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector LacZ E. coli Control (C-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 E. coli Promoter	No known significant effects or critical hazards.
	SureVector Tac E. coli	No known significant effects or critical hazards.

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## SECTION 11: Toxicological information

Promoter	
SureVector Rhamnose E. coli Promoter	No known significant effects or critical hazards.
SureVector HIS6 Expression Tag C-Term	No known significant effects or critical hazards.
SureVector LacZ E. coli Control (C-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.

## 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> 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> Ammonium sulphate	Chronic NOEC 7.5 mg/l Marine water	Algae - Phaeodactylum tricornutum - Exponential growth phase	96 hours	
	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	
Polyoxyethylene octyl phenyl ether	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours	
	<b>DpnI</b> 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		

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## SECTION 12: Ecological information

### 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	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>5X SureSolution</b> Dimethyl sulfoxide	-	-	Not readily
<b>10X SureVector Buffer</b> Ammonium sulphate	-	-	Readily
Polyoxyethylene octyl phenyl ether	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>5X SureSolution</b> Dimethyl sulfoxide	-1.35	3.16	low
<b>SureVector Enzyme Mix</b> Poly(oxy-1,2-ethanediyl), . alpha.-[ (1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	3.77	78.67	low
<b>10X SureVector Buffer</b> Ammonium sulphate	-5.1	-	low
Polyoxyethylene octyl phenyl ether	4.86	-	high

### 12.4 Mobility in soil

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

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
<b>5X SureSolution</b> Dimethyl sulfoxide	No	N/A	No	No	No	N/A	No

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

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product

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## SECTION 13: Disposal considerations

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

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

### Packaging

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

**Special precautions** : Dispose of material(s) and residues under controlled conditions. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-
<b>14.4 Packing group</b>	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.

### Additional information

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

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

## SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

**SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C**

## SECTION 15: Regulatory information

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
<b>SureVector Enzyme Mix</b> Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Substance of equivalent concern for environment	Listed	42	7/3/2017
<b>10X SureVector Buffer</b> Polyoxyethylene octyl phenyl ether	Substance of equivalent concern for environment	Listed	42	7/3/2017

### Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
<b>SureVector Enzyme Mix</b> Poly(oxy-1,2-ethanediyl), .alpha.-[ (1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	Substance of equivalent concern for environment	Recommended	ED/169/2012	7/3/2017
<b>10X SureVector Buffer</b> Polyoxyethylene octyl phenyl ether	Substance of equivalent concern for environment	Recommended	ED/169/2012	7/3/2017

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

Ingredient name	EC number	CAS number	Restriction
<b>10X SureVector Buffer</b> ammonium sulphate	231-984-1	7783-20-2	65

<b>Label</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 E. coli Promoter	Not applicable.
	SureVector Tac E. coli Promoter	Not applicable.
	SureVector Rhamnose E. coli Promoter	Not applicable.
	SureVector HIS6 Expression Tag C-Term	Not applicable.
	SureVector LacZ E. coli Control (C-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.

### Other EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Listed

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

Not listed.

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

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## SECTION 15: Regulatory information

Not listed.

### Persistent Organic Pollutants

Not listed.

### Seveso Directive

This product is not controlled under the Seveso Directive.

### International regulations

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

Not listed.

#### Montreal Protocol

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.
<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.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

## SECTION 16: Other information

📄 Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
N/A = Not available  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
vPvB = Very Persistent and Very Bioaccumulative

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

**SureVector E. coli C-terminal Promoter kit, 5 rxn, Part Number G7518C**

**SECTION 16: Other information**

Classification	Justification
<b>10X SureVector Buffer</b> Eye Irrit. 2, H319	Calculation method

Full text of abbreviated H statements

<p><b>SureVector Enzyme Mix</b> H319 H400 H410</p> <p><b>10X SureVector Buffer</b> H302 H315 H318 H319 H411</p> <p><b>Dpnl</b> H319</p>	<p>Causes serious eye irritation. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.</p> <p>Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.</p> <p>Causes serious eye irritation.</p>
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Full text of classifications [CLP/GHS]

<p><b>SureVector Enzyme Mix</b> Aquatic Acute 1 Aquatic Chronic 1 Eye Irrit. 2</p> <p><b>10X SureVector Buffer</b> Acute Tox. 4 Aquatic Chronic 2 Eye Dam. 1 Eye Irrit. 2 Skin Irrit. 2</p> <p><b>Dpnl</b> Eye Irrit. 2</p>	<p>SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2</p> <p>ACUTE TOXICITY - Category 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN CORROSION/IRRITATION - Category 2</p> <p>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2</p>
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**Date of issue/ Date of revision** : 28/03/2022

**Date of previous issue** : No previous validation

**Version** : 1

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