

SAFETY DATA SHEET



SureVector E. coli C-terminal Tag kit, 5 rxn, Part Number G7518E

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

1.1 Product identifier

Product name : SureVector E. coli C-terminal Tag kit, 5 rxn, Part Number G7518E

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 Not applicable.
Promoter
SureVector CBP Not applicable.
Expression Tag C-Term
SureVector SBP Not applicable.
Expression Tag C-Term
SureVector Thioredoxin 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.

Part no. (chemical kit) : G7518E

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 5190-8818
Promoter
SureVector CBP 5190-8827
Expression Tag C-Term
SureVector SBP 5190-8828
Expression Tag C-Term
SureVector Thioredoxin 5190-8829
Expression Tag C-Term
SureVector LacZ E. coli 5190-7819
Control (C-term)
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 CBP Expression Tag C-Term	0.01 ml (5 reactions)

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SureVector SBP Expression Tag C-Term	0.01 ml (5 reactions)
SureVector Thioredoxin 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

Product definition	: 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	Mixture
	Promoter	
	SureVector CBP	Mixture
	Expression Tag C-Term	
	SureVector SBP	Mixture
	Expression Tag C-Term	
	SureVector Thioredoxin	Mixture
	Expression Tag C-Term	
	SureVector LacZ E. coli	Mixture
	Control (C-term)	
	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

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SECTION 2: Hazards identification

Ingredients of unknown toxicity	: SureVector Enzyme Mix 10X SureVector Buffer DpnI	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60% 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% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 30 - 60%
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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 SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7 E. coli Promoter SureVector CBP Expression Tag C-Term SureVector SBP Expression Tag C-Term SureVector Thioredoxin Expression Tag C-Term SureVector LacZ E. coli Control (C-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. Warning No signal word. No signal word.
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Hazard statements	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7 E. coli Promoter SureVector CBP Expression Tag C-Term SureVector SBP Expression Tag C-Term SureVector Thioredoxin Expression Tag C-Term SureVector LacZ E. coli Control (C-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. H319 - Causes serious eye irritation. No known significant effects or critical hazards. No known significant effects or critical hazards.
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SECTION 2: Hazards identification

Precautionary statements

Prevention	:	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 CBP	Not applicable.
		Expression Tag C-Term	
		SureVector SBP	Not applicable.
		Expression Tag C-Term	
		SureVector Thioredoxin	Not applicable.
		Expression Tag C-Term	
		SureVector LacZ E. coli	Not applicable.
		Control (C-term)	
		SureVector Enzyme Mix	Not applicable.
		10X SureVector Buffer	P280 - Wear eye or face protection.
		dNTP Mix	Not applicable.
		DpnI	Not applicable.
Response	:	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 CBP	Not applicable.
		Expression Tag C-Term	
		SureVector SBP	Not applicable.
		Expression Tag C-Term	
		SureVector Thioredoxin	Not applicable.
		Expression Tag C-Term	
		SureVector LacZ E. coli	Not applicable.
		Control (C-term)	
		SureVector Enzyme Mix	Not applicable.
		10X SureVector Buffer	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
		dNTP Mix	Not applicable.
		DpnI	Not applicable.
Storage	:	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 CBP	Not applicable.
		Expression Tag C-Term	
		SureVector SBP	Not applicable.
		Expression Tag C-Term	
		SureVector Thioredoxin	Not applicable.
		Expression Tag C-Term	

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	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.
Disposal	: 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 CBP	Not applicable.
	Expression Tag C-Term	
	SureVector SBP	Not applicable.
	Expression Tag C-Term	
	SureVector Thioredoxin	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.
Hazardous ingredients	: SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	DpnI	Not applicable.
Supplemental label elements	: 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 CBP	Not applicable.
	Expression Tag C-Term	
	SureVector SBP	Not applicable.
	Expression Tag C-Term	
	SureVector Thioredoxin	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	Safety data sheet available on request.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: 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 CBP	Not applicable.
	Expression Tag C-Term	

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SECTION 2: Hazards identification

SureVector SBP	Not applicable.
Expression Tag C-Term	
SureVector Thioredoxin	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

Tactile warning of danger	:	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 CBP	Not applicable.
		Expression Tag C-Term	
		SureVector SBP	Not applicable.
		Expression Tag C-Term	
		SureVector Thioredoxin	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
5X SureSolution							
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	
Repressor	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
SureVector T7 E. coli	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Promoter	
SureVector CBP	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Expression Tag C-Term	
SureVector SBP	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Expression Tag C-Term	
SureVector Thioredoxin	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.

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dNTP Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
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 Selectable Marker	None known.
SureVector pUC Origin	None known.
SureVector XP1 Linker	None known.
SureVector LacI Repressor	None known.
SureVector T7 E. coli Promoter	None known.
SureVector CBP Expression Tag C-Term	None known.
SureVector SBP Expression Tag C-Term	None known.
SureVector Thioredoxin Expression Tag C-Term	None known.
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 CBP Expression Tag C-Term	Mixture
	SureVector SBP Expression Tag C-Term	Mixture
	SureVector Thioredoxin 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
5X SureSolution Dimethyl sulfoxide	EC: 200-664-3 CAS: 67-68-5	100	Not classified.	[A]
SureVector Enzyme Mix 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]

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SECTION 3: Composition/information on ingredients

10X SureVector Buffer				
Ammonium sulphate	EC: 231-984-1 CAS: 7783-20-2	≤3	Eye Irrit. 2, H319	[1]
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]
Dpnl				
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]
			See Section 16 for the full text of the H statements declared above.	

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

Eye contact	: 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 CBP Expression Tag 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 SBP Expression Tag 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.

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SureVector Thioredoxin Expression Tag 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 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.
DpnI	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation : 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 CBP 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 SBP 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 Thioredoxin 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

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SECTION 4: First aid measures

		decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	dNTP Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	DpnI	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: 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 <i>E. coli</i> Promoter	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector CBP Expression Tag C-Term	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector SBP Expression Tag C-Term	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector Thioredoxin Expression Tag C-Term	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector LacZ <i>E. coli</i> 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.
Ingestion	: 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.

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SureVector pUC Origin	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector XP1 Linker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector LacI Repressor	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector T7 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 CBP 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 SBP 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 Thioredoxin 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.
Dpnl	Wash out mouth with water. If material has been swallowed

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		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.
Protection of first-aiders	: 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	No action shall be taken involving any personal risk or without suitable training.
	Promoter	No action shall be taken involving any personal risk or without suitable training.
	SureVector CBP	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 SBP	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 Thioredoxin	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	No action shall be taken involving any personal risk or without suitable training.
	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

Eye contact	: 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 CBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector SBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector Thioredoxin	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector LacZ E. coli	No known significant effects or critical hazards.
	Control (C-term)	
	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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Over-exposure signs/symptoms

Eye contact	:	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 CBP	No specific data.
		Expression Tag C-Term	
		SureVector SBP	No specific data.
		Expression Tag C-Term	
		SureVector Thioredoxin	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
	Inhalation		dNTP Mix
		DpnI	No specific data.
:		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 CBP	No specific data.
		Expression Tag C-Term	
		SureVector SBP	No specific data.
		Expression Tag C-Term	
		SureVector Thioredoxin	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.	
Skin contact	:	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 CBP	No specific data.
		Expression Tag C-Term	
		SureVector SBP	No specific data.
		Expression Tag C-Term	
		SureVector Thioredoxin	No specific data.
		Expression Tag C-Term	
		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.
Ingestion	: 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 CBP	No specific data.
	Expression Tag C-Term	
	SureVector SBP	No specific data.
	Expression Tag C-Term	
	SureVector Thioredoxin	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

Notes to physician	: 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	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	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	immediately if large quantities have been ingested or inhaled.
	SureVector CBP	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Expression Tag C-Term	immediately if large quantities have been ingested or inhaled.
	SureVector SBP	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Expression Tag C-Term	immediately if large quantities have been ingested or inhaled.
	SureVector Thioredoxin	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Expression Tag C-Term	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)	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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Specific treatments	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7 E. coli Promoter SureVector CBP Expression Tag C-Term SureVector SBP Expression Tag C-Term SureVector Thioredoxin 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. No specific treatment. No specific treatment.
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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7 E. coli Promoter SureVector CBP Expression Tag C-Term SureVector SBP Expression Tag C-Term SureVector Thioredoxin 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. 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.
Unsuitable extinguishing media	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7 E. coli Promoter SureVector CBP Expression Tag C-Term SureVector SBP Expression Tag C-Term SureVector Thioredoxin 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. 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 CBP Expression Tag C-Term	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector SBP Expression Tag C-Term	In a fire or if heated, a pressure increase will occur and the container may burst.
SureVector Thioredoxin 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 CBP Expression Tag C-Term	No specific data.
SureVector SBP Expression Tag C-Term	No specific data.
SureVector Thioredoxin 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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	halogenated compounds
	metal oxide/oxides
dNTP Mix	No specific data.
DpnI	Decomposition products may include the following materials:
	carbon dioxide
	carbon monoxide
	halogenated compounds
	metal oxide/oxides

5.3 Advice for firefighters

Special 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 <i>E. coli</i> 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 CBP 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 SBP 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 Thioredoxin 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 <i>E. coli</i> 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 CBP 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 SBP 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 Thioredoxin 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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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 CBP 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 SBP 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 Thioredoxin 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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		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.
For emergency responders	: 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 CBP 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 SBP 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 Thioredoxin 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 <i>E. coli</i> 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 CBP 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 SBP 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 Thioredoxin 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 <i>E. coli</i> 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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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 CBP 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 SBP 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 Thioredoxin 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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	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

Protective measures	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 CBP Expression Tag C-Term	Put on appropriate personal protective equipment (see Section 8).
	SureVector SBP Expression Tag C-Term	Put on appropriate personal protective equipment (see Section 8).
	SureVector Thioredoxin 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 Section 8).

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Advice on general occupational hygiene

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

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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

Storage	: 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 <i>E. coli</i> Promoter	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
SureVector CBP 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 SBP 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 Thioredoxin 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 <i>E. coli</i> 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 CBP	Industrial applications, Professional applications.
Expression Tag C-Term	
SureVector SBP	Industrial applications, Professional applications.
Expression Tag C-Term	
SureVector Thioredoxin	Industrial applications, Professional applications.
Expression Tag C-Term	
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.
	Dpnl	Industrial applications, Professional applications.
Industrial sector specific solutions	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 CBP	Not available.
	Expression Tag C-Term	
	SureVector SBP	Not available.
	Expression Tag C-Term	
	SureVector Thioredoxin	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.	

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
SureVector Enzyme Mix Glycerol	NAOSH (Ireland, 1/2020). OELV-8hr: 10 mg/m ³ 8 hours. Form: mist
Dpnl Glycerol	NAOSH (Ireland, 1/2020). OELV-8hr: 10 mg/m ³ 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
5X SureSolution Dimethyl sulfoxide	DNEL	Long term Inhalation	47 mg/m ³	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 ³	General	Systemic

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10X SureVector Buffer Ammonium sulphate	DNEL	Inhalation Long term Dermal	200 mg/kg bw/day	population Workers	Systemic
	DNEL	Long term Inhalation	265 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	484 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1.667 mg/ m ³	General population	Systemic
	DNEL	Long term Oral	6.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	11.167 mg/ m ³	Workers	Systemic
Dpnl 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 ³	General population	Systemic
	DNEL	Long term Inhalation	443.28 mg/ m ³	General population	Systemic
	DNEL	Short term Inhalation	2068.62 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	2068.62 mg/m ³	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

Physical state	: 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 CBP	Liquid.
	Expression Tag C-Term	
	SureVector SBP	Liquid.
	Expression Tag C-Term	
	SureVector Thioredoxin	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.	
Colour	: 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 CBP	Not available.
	Expression Tag C-Term	
	SureVector SBP	Not available.
	Expression Tag C-Term	
	SureVector Thioredoxin	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.
Odour	: 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 E. coli	Not available.
	Promoter	
	SureVector CBP	Not available.
	Expression Tag C-Term	
	SureVector SBP	Not available.
	Expression Tag C-Term	
	SureVector Thioredoxin	Not available.
	Expression Tag C-Term	
	SureVector LacZ E. coli	Not available.
	Control (C-term)	
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
Odour threshold	: 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	Not available.
	Promoter	
	SureVector CBP	Not available.
	Expression Tag C-Term	
	SureVector SBP	Not available.
	Expression Tag C-Term	
	SureVector Thioredoxin	Not available.
	Expression Tag C-Term	
	SureVector LacZ E. coli	Not available.
	Control (C-term)	
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
Melting point/freezing point	: 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 E. coli	0°C
	Promoter	
	SureVector CBP	0°C
	Expression Tag C-Term	
	SureVector SBP	0°C
	Expression Tag C-Term	
	SureVector Thioredoxin	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.
Initial boiling point and boiling range	: 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 CBP	100°C (212°F)
	Expression Tag C-Term	
	SureVector SBP	100°C (212°F)
	Expression Tag C-Term	
	SureVector Thioredoxin	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.
Flammability (solid, gas)	: 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 CBP	Not applicable.
	Expression Tag C-Term	
	SureVector SBP	Not applicable.
	Expression Tag C-Term	
	SureVector Thioredoxin	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.
Upper/lower flammability or explosive limits	: 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 CBP	Not available.
	Expression Tag C-Term	
	SureVector SBP	Not available.
	Expression Tag C-Term	

SureVector E. coli C-terminal Tag kit, 5 rxn, Part Number G7518E

SECTION 9: Physical and chemical properties

SureVector Thioredoxin Expression Tag C-Term Not available.
 SureVector LacZ E. coli Control (C-term) Not available.
 SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI Not available.
 SureVector AmpR Selectable Marker Not available.
 SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7 E. coli Promoter SureVector CBP Expression Tag C-Term SureVector SBP Expression Tag C-Term SureVector Thioredoxin Expression Tag C-Term SureVector LacZ E. coli Control (C-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI Not available.

Flash point

: 5X SureSolution Closed cup: 87°C (188.6°F) [ASTM D 93]
 Open cup: 87°C (188.6°F)

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
SureVector AmpR Selectable Marker						
Edetic acid	>100	>212	DIN 51758			
SureVector pUC Origin						
Edetic acid	>100	>212	DIN 51758			
SureVector XP1 Linker						
Edetic acid	>100	>212	DIN 51758			
SureVector LacI Repressor						
Edetic acid	>100	>212	DIN 51758			
SureVector T7 E. coli Promoter						
Edetic acid	>100	>212	DIN 51758			
SureVector CBP Expression Tag C-Term						
Edetic acid	>100	>212	DIN 51758			
SureVector SBP Expression Tag C-Term						

SureVector E. coli C-terminal Tag kit, 5 rxn, Part Number G7518E

SECTION 9: Physical and chemical properties

Edetic acid	>100	>212	DIN 51758			
SureVector Thioredoxin Expression Tag C-Term						
Edetic acid	>100	>212	DIN 51758			
SureVector LacZ E. coli Control (C-term)						
Edetic acid	>100	>212	DIN 51758			
SureVector Enzyme Mix						
Edetic acid	>100	>212	DIN 51758			
Poly(oxy-1,2-ethanediyl), .alpha.-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	>109.85	>229.7				
10X SureVector Buffer						
Polyoxyethylene octyl phenyl ether	>109.85	>229.7				
dNTP Mix						
Edetic acid	>100	>212	DIN 51758			
Dpnl						
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 CBP	Not available.
Expression Tag C-Term	
SureVector SBP	Not available.
Expression Tag C-Term	
SureVector Thioredoxin	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.

SureVector E. coli C-terminal Tag kit, 5 rxn, Part Number G7518E

SECTION 9: Physical and chemical properties

Ingredient name	°C	°F	Method
SureVector AmpR Selectable Marker			
Edetic acid	>400	>752	VDI 2263
SureVector pUC Origin			
Edetic acid	>400	>752	VDI 2263
SureVector XP1 Linker			
Edetic acid	>400	>752	VDI 2263
SureVector LacI Repressor			
Edetic acid	>400	>752	VDI 2263
SureVector T7 E. coli Promoter			
Edetic acid	>400	>752	VDI 2263
SureVector CBP Expression Tag C-Term			
Edetic acid	>400	>752	VDI 2263
SureVector SBP Expression Tag C-Term			
Edetic acid	>400	>752	VDI 2263
SureVector Thioredoxin Expression Tag C-Term			
Edetic acid	>400	>752	VDI 2263
SureVector LacZ E. coli Control (C-term)			
Edetic acid	>400	>752	VDI 2263
SureVector Enzyme Mix			
Glycerol	370	698	
Edetic acid	>400	>752	VDI 2263
dNTP Mix			
Edetic acid	>400	>752	VDI 2263
Dpnl			
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 CBP Not available.

SureVector E. coli C-terminal Tag kit, 5 rxn, Part Number G7518E

SECTION 9: Physical and chemical properties

		Expression Tag C-Term SureVector SBP	Not available.
		Expression Tag C-Term SureVector Thioredoxin	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.
pH	:	5X SureSolution	Not available.
		SureVector AmpR	8
		Selectable Marker	
		SureVector pUC Origin	8
		SureVector XP1 Linker	8
		SureVector LacI	8
		Repressor	
		SureVector T7 E. coli Promoter	8
		SureVector CBP	8
		Expression Tag C-Term SureVector SBP	8
		Expression Tag C-Term SureVector Thioredoxin	8
		Expression Tag C-Term 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
Viscosity	:	5X SureSolution	Dynamic: 2.14 mPa·s
		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 CBP	Not available.
		Expression Tag C-Term SureVector SBP	Not available.
		Expression Tag C-Term SureVector Thioredoxin	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.
Solubility(ies)	:	5X SureSolution	Easily soluble in the following materials: cold water and hot water.
		SureVector AmpR	Easily soluble in the following materials: cold water and hot water.
		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 *E. coli* C-terminal Tag kit, 5 rxn, Part Number G7518E

SECTION 9: Physical and chemical properties

	SureVector LacI	Easily soluble in the following materials: cold water and hot water.
	Repressor	
	SureVector T7 <i>E. coli</i>	Easily soluble in the following materials: cold water and hot water.
	Promoter	
	SureVector CBP	Easily soluble in the following materials: cold water and hot water.
	Expression Tag C-Term	
	SureVector SBP	Easily soluble in the following materials: cold water and hot water.
	Expression Tag C-Term	
	SureVector Thioredoxin	Easily soluble in the following materials: cold water and hot water.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	Easily soluble in the following materials: cold water and hot water.
	Control (C-term)	
	SureVector Enzyme Mix	Soluble in the following materials: cold water and hot water.
	10X SureVector Buffer	Easily soluble in the following materials: cold water and hot water.
	dNTP Mix	Easily soluble in the following materials: cold water and hot water.
	DpnI	Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: 5X SureSolution	-1.35
	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 CBP	Not applicable.
	Expression Tag C-Term	
	SureVector SBP	Not applicable.
	Expression Tag C-Term	
	SureVector Thioredoxin	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.
Vapour pressure	: 5X SureSolution	0.056 kPa (0.42 mm Hg) [EU A.4]
	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 CBP	Not available.
	Expression Tag C-Term	
	SureVector SBP	Not available.
	Expression Tag C-Term	
	SureVector Thioredoxin	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.

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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
SureVector AmpR Selectable Marker						
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	
SureVector pUC Origin						
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	
SureVector XP1 Linker						
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	
SureVector LacI Repressor						
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	
SureVector T7 E. coli Promoter						
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	
SureVector CBP Expression Tag C-Term						
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	
SureVector SBP Expression Tag C-Term						
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	
SureVector Thioredoxin Expression Tag C-Term						
Water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-	0.000027	0.0000036		0.000007501	0.000001	

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SECTION 9: Physical and chemical properties

1,3-diol hydrochloride					
SureVector LacZ E. coli Control (C-term)					
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
SureVector Enzyme Mix					
Water	23.8	3.2		92.258	12.3
Sorbitan monolaurate, ethoxylated	<1	<0.13			
10X SureVector Buffer					
Water	23.8	3.2		92.258	12.3
Polyoxyethylene octyl phenyl ether	<1	<0.13			
dNTP Mix					
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
Dpnl					
Water	23.8	3.2		92.258	12.3
Glycerol	0.000075	0.00001		0.0025	0.00033

- Evaporation rate** :
- 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 CBP Not available.
 - Expression Tag C-Term
 - SureVector SBP Not available.
 - Expression Tag C-Term
 - SureVector Thioredoxin 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.
- Relative density** :
- 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.

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SECTION 9: Physical and chemical properties

	Promoter	
	SureVector CBP	Not available.
	Expression Tag C-Term	
	SureVector SBP	Not available.
	Expression Tag C-Term	
	SureVector Thioredoxin	Not available.
	Expression Tag C-Term	
	SureVector LacZ E. coli	Not available.
	Control (C-term)	
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
Vapour density	: 5X SureSolution	2.7 [Air = 1]
	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	Not available.
	Promoter	
	SureVector CBP	Not available.
	Expression Tag C-Term	
	SureVector SBP	Not available.
	Expression Tag C-Term	
	SureVector Thioredoxin	Not available.
	Expression Tag C-Term	
	SureVector LacZ E. coli	Not available.
	Control (C-term)	
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
Oxidising properties	: 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	Not available.
	Promoter	
	SureVector CBP	Not available.
	Expression Tag C-Term	
	SureVector SBP	Not available.
	Expression Tag C-Term	
	SureVector Thioredoxin	Not available.
	Expression Tag C-Term	
	SureVector LacZ E. coli	Not available.
	Control (C-term)	
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.

Particle characteristics

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SECTION 9: Physical and chemical properties

Median particle size	: 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 CBP	Not applicable.
	Expression Tag C-Term	
	SureVector SBP	Not applicable.
	Expression Tag C-Term	
	SureVector Thioredoxin	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.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: 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 LacI	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 CBP	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 SBP	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 Thioredoxin	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.
	DpnI	No specific test data related to reactivity available for this product or its ingredients.

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SECTION 10: Stability and reactivity

10.2 Chemical stability	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector Lacl Repressor SureVector T7 E. coli Promoter SureVector CBP Expression Tag C-Term SureVector SBP Expression Tag C-Term SureVector Thioredoxin 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. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector Lacl Repressor SureVector T7 E. coli Promoter SureVector CBP Expression Tag C-Term SureVector SBP Expression Tag C-Term SureVector Thioredoxin 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. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: 5X SureSolution SureVector AmpR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector Lacl Repressor SureVector T7 E. coli Promoter SureVector CBP Expression Tag C-Term	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.

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SECTION 10: Stability and reactivity

SureVector SBP	No specific data.
Expression Tag C-Term	
SureVector Thioredoxin	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.

10.5 Incompatible materials

: 5X SureSolution	May react or be incompatible with oxidising materials.
SureVector AmpR	May react or be incompatible with oxidising materials.
Selectable Marker	
SureVector pUC Origin	May react or be incompatible with oxidising materials.
SureVector XP1 Linker	May react or be incompatible with oxidising materials.
SureVector LacI	May react or be incompatible with oxidising materials.
Repressor	
SureVector T7 E. coli	May react or be incompatible with oxidising materials.
Promoter	
SureVector CBP	May react or be incompatible with oxidising materials.
Expression Tag C-Term	
SureVector SBP	May react or be incompatible with oxidising materials.
Expression Tag C-Term	
SureVector Thioredoxin	May react or be incompatible with oxidising materials.
Expression Tag C-Term	
SureVector LacZ E. coli	May react or be incompatible with oxidising materials.
Control (C-term)	
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	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Repressor	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector T7 E. coli	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Promoter	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector CBP	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Expression Tag C-Term	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector SBP	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Expression Tag C-Term	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector Thioredoxin	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Expression Tag C-Term	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector LacZ E. coli	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
5X SureSolution Dimethyl sulfoxide	LD50 Dermal LD50 Oral	Rat Rat	40000 mg/kg 14500 mg/kg	- -
SureVector Enzyme Mix Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl) phenyl]-.omega.-hydroxy-	LD50 Oral	Rat	2800 mg/kg	-
10X SureVector Buffer Ammonium sulphate Polyoxyethylene octyl phenyl ether	LD50 Oral LD50 Oral	Rat Rat	2840 mg/kg 1800 mg/kg	- -
Dpnl 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)
5X SureSolution Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A
SureVector Enzyme Mix Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	2800	N/A	N/A	N/A	N/A
10X SureVector Buffer 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
Dpnl Sodium chloride	3000	N/A	N/A	N/A	N/A

Irritation/Corrosion

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

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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	Not available.
Promoter	
SureVector CBP	Not available.
Expression Tag C-Term	
SureVector SBP	Not available.
Expression Tag C-Term	
SureVector Thioredoxin	Not available.
Expression Tag C-Term	
SureVector LacZ E. coli	Not available.
Control (C-term)	
SureVector Enzyme Mix	Routes of entry anticipated: Oral, Dermal, Inhalation.
10X SureVector Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
dNTP Mix	Not available.
Dpnl	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation	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 CBP	No known significant effects or critical hazards.
	Expression Tag C-Term	

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	SureVector SBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector Thioredoxin	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	No known significant effects or critical hazards.
	Control (C-term)	
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
Ingestion	: 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 <i>E. coli</i>	No known significant effects or critical hazards.
	Promoter	
	SureVector CBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector SBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector Thioredoxin	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	No known significant effects or critical hazards.
	Control (C-term)	
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
Skin contact	: 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 <i>E. coli</i>	No known significant effects or critical hazards.
	Promoter	
	SureVector CBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector SBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector Thioredoxin	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	No known significant effects or critical hazards.
	Control (C-term)	
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
Eye contact	: 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 <i>E. coli</i>	No known significant effects or critical hazards.
	Promoter	
	SureVector CBP	No known significant effects or critical hazards.

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Expression Tag C-Term SureVector SBP	No known significant effects or critical hazards.
Expression Tag C-Term SureVector Thioredoxin	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	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

Inhalation	:	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 CBP	No specific data.	
		Expression Tag C-Term SureVector SBP	No specific data.	
		Expression Tag C-Term SureVector Thioredoxin	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.	
	Ingestion	:	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 CBP	No specific data.	
		Expression Tag C-Term SureVector SBP	No specific data.	
		Expression Tag C-Term SureVector Thioredoxin	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.	
Skin contact		:	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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	Promoter	
	SureVector CBP	No specific data.
	Expression Tag C-Term	
	SureVector SBP	No specific data.
	Expression Tag C-Term	
	SureVector Thioredoxin	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.
Eye contact	: 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 CBP	No specific data.
	Expression Tag C-Term	
	SureVector SBP	No specific data.
	Expression Tag C-Term	
	SureVector Thioredoxin	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

General	: 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 CBP	No known significant effects or critical hazards.
	Expression Tag C-Term	

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	SureVector SBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector Thioredoxin	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	No known significant effects or critical hazards.
	Control (C-term)	
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
Carcinogenicity	: 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 <i>E. coli</i>	No known significant effects or critical hazards.
	Promoter	
	SureVector CBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector SBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector Thioredoxin	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	No known significant effects or critical hazards.
	Control (C-term)	
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
Mutagenicity	: 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 <i>E. coli</i>	No known significant effects or critical hazards.
	Promoter	
	SureVector CBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector SBP	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector Thioredoxin	No known significant effects or critical hazards.
	Expression Tag C-Term	
	SureVector LacZ <i>E. coli</i>	No known significant effects or critical hazards.
	Control (C-term)	
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
Reproductive toxicity	: 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 <i>E. coli</i>	No known significant effects or critical hazards.
	Promoter	
	SureVector CBP	No known significant effects or critical hazards.

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SECTION 11: Toxicological information

Expression Tag C-Term SureVector SBP	No known significant effects or critical hazards.
Expression Tag C-Term SureVector Thioredoxin	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	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
5X SureSolution 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
SureVector Enzyme Mix 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
10X SureVector Buffer Ammonium sulphate	Chronic NOEC 7.5 mg/l Marine water	Algae - Phaeodactylum tricornutum - Exponential growth phase	96 hours
Polyoxyethylene octyl phenyl ether	Acute LC50 5.85 mg/l Fresh water	Crustaceans - Ceriodaphnia rigaudi - Neonate	48 hours
	Acute LC50 11.2 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
DpnI 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
5X SureSolution Dimethyl sulfoxide	OECD 301D Ready Biodegradability - Closed Bottle Test	31 % - Not readily - 28 days	-	-

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

12.3 Bioaccumulative potential

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

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
5X SureSolution 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

SureVector E. coli C-terminal Tag kit, 5 rxn, Part Number G7518E

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

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	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 Tag kit, 5 rxn, Part Number G7518E

SECTION 15: Regulatory information

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
SureVector Enzyme Mix 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
10X SureVector Buffer 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
SureVector Enzyme Mix 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
10X SureVector Buffer 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
10X SureVector Buffer ammonium sulphate	231-984-1	7783-20-2	65

Label	: 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 CBP Expression Tag C-Term	Not applicable.
	SureVector SBP Expression Tag C-Term	Not applicable.
	SureVector Thioredoxin 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

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

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SECTION 16: Other information

Classification	Justification
10X SureVector Buffer Eye Irrit. 2, H319	Calculation method

Full text of abbreviated H statements

<p>SureVector Enzyme Mix H319 H400 H410</p> <p>10X SureVector Buffer H302 H315 H318 H319 H411</p> <p>Dpnl 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>SureVector Enzyme Mix Aquatic Acute 1 Aquatic Chronic 1 Eye Irrit. 2</p> <p>10X SureVector Buffer Acute Tox. 4 Aquatic Chronic 2 Eye Dam. 1 Eye Irrit. 2 Skin Irrit. 2</p> <p>Dpnl 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 : 22/03/2022

Date of previous issue : No previous validation

Version : 1

Notice to reader

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