

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 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.

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

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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 LDA UK Ltd.
 5500 Lakeside Cheadle Royal Business Park,
 Cheadle, Cheshire, SK8 3GR
 United Kingdom
 Tel: +44 (0) 345 712 5292
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

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

SECTION 2: Hazards identification

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

<input checked="" type="checkbox"/> SureSolution	No signal word.
SureVector AmpR	No signal word.
Selectable Marker	
SureVector pUC Origin	No signal word.
SureVector XP1 Linker	No signal word.
SureVector LacI	No signal word.
Repressor	
SureVector T7 E. coli	No signal word.
Promoter	
SureVector CBP	No signal word.
Expression Tag C-Term	
SureVector SBP	No signal word.
Expression Tag C-Term	
SureVector Thioredoxin	No signal word.
Expression Tag C-Term	
SureVector LacZ E. coli	No signal word.
Control (C-term)	
SureVector Enzyme Mix	No signal word.
10X SureVector Buffer	Warning
dNTP Mix	No signal word.
DpnI	No signal word.

Hazard statements

<input checked="" type="checkbox"/> 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	H319 - Causes serious eye irritation.
dNTP Mix	No known significant effects or critical hazards.
DpnI	No known significant effects or critical hazards.

Precautionary statements

Prevention

<input checked="" type="checkbox"/> 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.

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SECTION 2: Hazards identification

	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	: <input checked="" type="checkbox"/> 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	
	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.

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SECTION 2: Hazards identification

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

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SECTION 2: Hazards identification

Other hazards which do not result in classification	5X SureSolution	None known.
	SureVector AmpR	None known.
	Selectable Marker	
	SureVector pUC Origin	None known.
	SureVector XP1 Linker	None known.
	SureVector LacI	None known.
	Repressor	
	SureVector T7 E. coli Promoter	None known.
	SureVector CBP	None known.
	Expression Tag C-Term	
	SureVector SBP	None known.
	Expression Tag C-Term	
	SureVector Thioredoxin	None known.
	Expression Tag C-Term	
	SureVector LacZ E. coli Control (C-term)	None known.
	SureVector Enzyme Mix	None known.
	10X SureVector Buffer	None known.
dNTP Mix	None known.	
DpnI	None known.	

SECTION 3: Composition/information on ingredients

3.1 Substances	5X SureSolution	Mono-constituent substance
	SureVector AmpR Selectable Marker	Mixture
	SureVector pUC Origin	Mixture
	SureVector XP1 Linker	Mixture
	SureVector LacI Repressor	Mixture
	SureVector T7 E. coli Promoter	Mixture
	SureVector CBP Expression Tag C-Term	Mixture
	SureVector SBP Expression Tag C-Term	Mixture
	SureVector Thioredoxin	Mixture
	Expression Tag C-Term	
	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]
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	[1] [5]

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SECTION 3: Composition/information on ingredients

Dpnl			Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411	
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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: 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.
	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

SECTION 4: First aid measures

Inhalation

		lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	10X SureVector Buffer	
	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. 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	
	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 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.

SECTION 4: First aid measures

Skin contact	:  SureSolution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector AmpR Selectable Marker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector pUC Origin	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector XP1 Linker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector LacI Repressor	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector T7 E. coli Promoter	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector 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 E. coli Control (C-term)	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector Enzyme Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	10X SureVector Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	dNTP Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	DpnI	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:  SureSolution	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureVector AmpR Selectable Marker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureVector pUC Origin	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities 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.

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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 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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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.
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	

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	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	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 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	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 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	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
<u>Over-exposure signs/symptoms</u>		
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.

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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	Adverse symptoms may include the following: pain or irritation watering redness
	dNTP Mix	No specific data.
	DpnI	No specific data.
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	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.
	Control (C-term)	
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.

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Ingestion	: 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 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. 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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4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: 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	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: 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	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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SureVector SBP Expression Tag C-Term	No specific treatment.
SureVector Thioredoxin Expression Tag C-Term	No specific treatment.
SureVector LacZ E. coli Control (C-term)	No specific treatment.
SureVector Enzyme Mix	No specific treatment.
10X SureVector Buffer	No specific treatment.
dNTP Mix	No specific treatment.
DpnI	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

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

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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 E. coli Promoter	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
SureVector 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 E. coli Control (C-term)	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
SureVector Enzyme Mix	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
10X SureVector Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
dNTP Mix	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
DpnI	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

: 5X SureSolution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureVector AmpR Selectable Marker	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
SureVector pUC Origin	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. 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.

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SureVector XP1 Linker	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. 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	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 <i>E. coli</i> Promoter	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. 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	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	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	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 <i>E. coli</i> Control (C-term)	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	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	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	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.
DpnI	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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SECTION 5: Firefighting measures

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

: 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. 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.

SECTION 6: Accidental release measures

For emergency responders

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

SECTION 6: Accidental release measures

6.2 Environmental precautions

DpnI	unsuitable materials. See also the information in "For non-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".
: 5X SureSolution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector AmpR Selectable Marker	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector pUC Origin	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector XP1 Linker	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector LacI Repressor	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector T7 E. coli Promoter	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector 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 E. coli Control (C-term)	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SureVector Enzyme Mix	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
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).
DpnI	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).

SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : 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 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

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SECTION 6: Accidental release measures

dNTP Mix	under controlled conditions. 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).
DpnI		Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: 5X SureSolution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector AmpR Selectable Marker		Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also

SECTION 7: Handling and storage

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

SECTION 7: Handling and storage

DpnI

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

7.2 Conditions for safe storage, including any incompatibilities

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 been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

SureVector LacI
Repressor

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

SureVector T7 *E. coli*
Promoter

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and

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	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 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

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dNTP Mix	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. 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	Industrial applications, Professional applications.
Selectable Marker	
SureVector pUC Origin	Industrial applications, Professional applications.
SureVector XP1 Linker	Industrial applications, Professional applications.
SureVector LacI	Industrial applications, Professional applications.
Repressor	
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.
10X SureVector Buffer	Industrial applications, Professional applications.
dNTP Mix	Industrial applications, Professional applications.
DpnI	Industrial applications, Professional applications.

Industrial sector specific solutions

<input checked="" type="checkbox"/> 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	

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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	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 10 mg/m ³ 8 hours. Form: Mist
Dpnl Glycerol	EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 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 Inhalation	120 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	200 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	265 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	484 mg/m ³	Workers	Systemic
10X SureVector Buffer Ammonium sulphate	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
	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

SECTION 8: Exposure controls/personal protection

Dpnl Sodium chloride	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

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.
		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 <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 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	
	SureVector LacZ E. coli	0°C
	Control (C-term)	
	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	100°C (212°F)
	Promoter	
	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	100°C (212°F)

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	Control (C-term)	
	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	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.
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	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.
Flash point	: 5 X SureSolution	Closed cup: 87°C (188.6°F) [ASTM D 93] Open cup: 87°C (188.6°F)
	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.

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

SECTION 9: Physical and chemical properties

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.

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						
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						

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

SECTION 9: Physical and chemical properties

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 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.
- Dpnl Not available.

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

SECTION 9: Physical and chemical properties

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
DpnI			
Glycerol	370	698	
Edetic acid	>400	>752	VDI 2263

Decomposition temperature

: 5X SureSolution	140 to 189°C
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.

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

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

SECTION 9: Physical and chemical properties

Viscosity	: <input checked="" type="checkbox"/> 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	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.
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 LacI	Easily soluble in the following materials: cold water and hot water.
	Repressor	Easily soluble in the following materials: cold water and hot water.
	SureVector T7 E. coli	Easily soluble in the following materials: cold water and hot water.
	Promoter	Easily soluble in the following materials: cold water and hot water.
	SureVector CBP	Easily soluble in the following materials: cold water and hot water.
	Expression Tag C-Term	Easily soluble in the following materials: cold water and hot water.
	SureVector SBP	Easily soluble in the following materials: cold water and hot water.
	Expression Tag C-Term	Easily soluble in the following materials: cold water and hot water.
	SureVector Thioredoxin	Easily soluble in the following materials: cold water and hot water.
	Expression Tag C-Term	Easily soluble in the following materials: cold water and hot water.
	SureVector LacZ E. coli	Easily soluble in the following materials: cold water and hot water.
	Control (C-term)	Easily soluble in the following materials: cold water and hot water.
	SureVector Enzyme Mix	Soluble in the following materials: cold water and hot water.
	10X SureVector Buffer	Easily soluble in the following materials: cold water and hot water.
	dNTP Mix	Easily soluble in the following materials: cold water and hot water.
	DpnI	Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: <input checked="" type="checkbox"/> 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 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.

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

SECTION 9: Physical and chemical properties

Vapour pressure

Control (C-term)	
SureVector Enzyme Mix	Not applicable.
10X SureVector Buffer	Not applicable.
dNTP Mix	Not applicable.
DpnI	Not applicable.
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 Lacl	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.

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 Lacl 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	

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SECTION 9: Physical and chemical properties

2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.000036		0.00007501	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	0.000036		0.00007501	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	0.000036		0.00007501	0.000001
SureVector Thioredoxin Expression Tag C-Term					
Water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.000036		0.00007501	0.000001
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	0.000036		0.00007501	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	0.000036		0.00007501	0.000001
Dpnl					
Water	23.8	3.2		92.258	12.3
Glycerol	0.000075	0.00001		0.0025	0.00033

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SECTION 9: Physical and chemical properties

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 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.
Relative density	:	5X SureSolution	1.1
		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.
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.

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SECTION 9: Physical and chemical properties

Oxidising properties	: 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	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
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Particle characteristics

Median particle size	: <input checked="" type="checkbox"/> 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	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: 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	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
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SECTION 10: Stability and reactivity

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.

10.2 Chemical stability

: 5X SureSolution	The product is stable.
SureVector AmpR	The product is stable.
Selectable Marker	
SureVector pUC Origin	The product is stable.
SureVector XP1 Linker	The product is stable.
SureVector LacI	The product is stable.
Repressor	
SureVector T7 E. coli	The product is stable.
Promoter	
SureVector CBP	The product is stable.
Expression Tag C-Term	
SureVector SBP	The product is stable.
Expression Tag C-Term	
SureVector Thioredoxin	The product is stable.
Expression Tag C-Term	
SureVector LacZ E. coli	The product is stable.
Control (C-term)	
SureVector Enzyme Mix	The product is stable.
10X SureVector Buffer	The product is stable.
dNTP Mix	The product is stable.
DpnI	The product is stable.

10.3 Possibility of hazardous reactions

: 5X SureSolution	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector AmpR	Under normal conditions of storage and use, hazardous reactions will not occur.
Selectable Marker	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector pUC Origin	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector XP1 Linker	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector LacI	Under normal conditions of storage and use, hazardous reactions will not occur.
Repressor	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector T7 E. coli	Under normal conditions of storage and use, hazardous reactions will not occur.
Promoter	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector CBP	Under normal conditions of storage and use, hazardous reactions will not occur.
Expression Tag C-Term	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector SBP	Under normal conditions of storage and use, hazardous reactions will not occur.
Expression Tag C-Term	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector Thioredoxin	Under normal conditions of storage and use, hazardous reactions will not occur.
Expression Tag C-Term	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector LacZ E. coli	Under normal conditions of storage and use, hazardous reactions will not occur.
Control (C-term)	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector Enzyme Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
10X SureVector Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
dNTP Mix	Under normal conditions of storage and use, hazardous reactions will not occur.

SECTION 10: Stability and reactivity

DpnI Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid :

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.

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	
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	
SureVector T7 E. coli	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Promoter	
SureVector CBP	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Expression Tag C-Term	
SureVector SBP	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Expression Tag C-Term	

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SECTION 10: Stability and reactivity

SureVector Thioredoxin Expression Tag C-Term	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector LacZ E. coli Control (C-term)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector Enzyme Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
10X SureVector Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
dNTP Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Dpnl	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
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	180000	N/A	N/A	N/A	N/A
Ammonium sulphate	2840	N/A	N/A	N/A	N/A
Polyoxyethylene octyl phenyl ether	1800	N/A	N/A	N/A	N/A
Dpnl Sodium chloride	3000	N/A	N/A	N/A	N/A

Irritation/Corrosion

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SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
5X SureSolution Dimethyl sulfoxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	100 mg	-
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	-
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 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.
Expression Tag C-Term	
SureVector SBP	Not available.
Expression Tag C-Term	
SureVector Thioredoxin	Not available.
Expression Tag C-Term	

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SECTION 11: Toxicological information

SureVector LacZ E. coli Control (C-term)	Not available.
SureVector Enzyme Mix	Routes of entry anticipated: Oral, Dermal, Inhalation.
10X SureVector Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
dNTP Mix	Not available.
DpnI	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 Promoter	No known significant effects or critical hazards.
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 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.

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 E. coli Promoter	No known significant effects or critical hazards.
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 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.

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 E. coli Promoter	No known significant effects or critical hazards.
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	

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

Symptoms related to the physical, chemical and toxicological characteristics

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 Expression Tag C-Term	No specific data.
	SureVector LacZ E. coli Control (C-term)	No specific data.
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.
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	

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	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.
	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	: <input checked="" type="checkbox"/> 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.

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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 <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.	
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	

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	SureVector Thioredoxin Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector LacZ E. coli Control (C-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
Reproductive toxicity	5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7 E. coli Promoter	No known significant effects or critical hazards.
	SureVector CBP	No known significant effects or critical hazards.
	Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector SBP	No known significant effects or critical hazards.
	Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector Thioredoxin Expression Tag C-Term	No known significant effects or critical hazards.
	SureVector LacZ E. coli Control (C-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
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	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

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Dpnl Sodium chloride	Acute EC50 2430000 µg/l Fresh water Acute EC50 519.6 mg/l Fresh water	Algae - Navicula seminulum Crustaceans - Cypris subglobosa	96 hours 48 hours
	Acute EC50 402.6 mg/l Fresh water Acute IC50 6.87 g/L Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water	Daphnia - Daphnia magna Aquatic plants - Lemna minor Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 96 hours 96 hours 3 weeks
	Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 21 days 8 weeks

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

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SECTION 12: Ecological information

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

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

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
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SECTION 15: Regulatory information

Ozone depleting substances (1005/2009/EU)

Not listed.

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

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	: <input checked="" type="checkbox"/> 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

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SECTION 16: Other information

RRN = REACH Registration Number
 vPvB = Very Persistent and Very Bioaccumulative

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

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

[Full text of abbreviated H statements](#)

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

SureVector Enzyme Mix Aquatic Acute 1 Aquatic Chronic 1 Eye Irrit. 2 10X SureVector Buffer Acute Tox. 4 Aquatic Chronic 2 Eye Dam. 1 Eye Irrit. 2 Skin Irrit. 2 Dpnl Eye Irrit. 2	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 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 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
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