

# SAFETY DATA SHEET



SureVector E. coli Selection Kit, Part Number G7518A

## Section 1. Identification

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

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

<b>Material uses</b>	: Analytical reagent.	
	5X SureSolution	0.1 ml (15 reactions)
	SureVector AmpR Selectable Marker	0.01 ml (5 reactions)
	SureVector KanR Selectable Marker	0.01 ml (5 reactions)
	SureVector ChIR Selectable Marker	0.01 ml (5 reactions)
	SureVector pUC Origin	0.01 ml (5 reactions)
	SureVector XP1 Linker	0.01 ml (5 reactions)
	SureVector LacI Repressor	0.01 ml (5 reactions)
	SureVector T7-HIS6 E. coli Promoter	0.01 ml (5 reactions)
	SureVector LacZ Control (N-term)	0.01 ml (5 reactions)
	SureVector Enzyme Mix	0.015 ml (15 reactions)
	10X SureVector Buffer	0.03 ml (15 reactions)
	dNTP Mix	0.03 ml
	DpnI	0.03 ml (15 reactions)

**Supplier/Manufacturer** : Agilent Technologies Australia Pty Ltd  
679 Springvale Road  
Mulgrave  
Victoria 3170, Australia  
1800 802 402

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +(61)-290372994

## Section 2. Hazard(s) identification

### Classification of the substance or mixture

**5X SureSolution**  
H227 FLAMMABLE LIQUIDS - Category 4

### GHS label elements

## Section 2. Hazard(s) identification

<b>Signal word</b>	: <input checked="" type="checkbox"/> SureSolution	WARNING
	SureVector AmpR Selectable Marker	No signal word.
	SureVector KanR Selectable Marker	No signal word.
	SureVector ChIR Selectable Marker	No signal word.
	SureVector pUC Origin	No signal word.
	SureVector XP1 Linker	No signal word.
	SureVector LacI Repressor	No signal word.
	SureVector T7-HIS6 E. coli Promoter	No signal word.
	SureVector LacZ Control (N- term)	No signal word.
	SureVector Enzyme Mix	No signal word.
	10X SureVector Buffer	No signal word.
	dNTP Mix	No signal word.
	DpnI	No signal word.
<b>Hazard statements</b>	: <input checked="" type="checkbox"/> SureSolution	H227 - Combustible liquid.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N- term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
<b>Precautionary statements</b>		
<b>Prevention</b>	: <input checked="" type="checkbox"/> SureSolution	P210 - Keep away from flames and hot surfaces. No smoking.
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector LacZ Control (N- term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.

## Section 2. Hazard(s) identification

<b>Response</b>	: 5X SureSolution	Not applicable.
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector LacZ Control (N- term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.
<b>Storage</b>	: 5X SureSolution	P403 + P235 - Store in a well-ventilated place. Keep cool.
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector LacZ Control (N- term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.
<b>Disposal</b>	: 5X SureSolution	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector LacZ Control (N- term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.
	dNTP Mix	Not applicable.
	DpnI	Not applicable.

### Supplemental label elements

## Section 2. Hazard(s) identification

<b>Additional warning phrases</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector KanR Selectable Marker SureVector ChIR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7-HIS6 E. coli Promoter SureVector LacZ Control (N-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
<b>Other hazards which do not result in classification</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector KanR Selectable Marker SureVector ChIR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7-HIS6 E. coli Promoter SureVector LacZ Control (N-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known. None known.

## Section 3. Composition and ingredient information

<b>Substance/mixture</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector KanR Selectable Marker SureVector ChIR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7-HIS6 E. coli Promoter SureVector LacZ Control (N-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	Substance Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture
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### CAS number/other identifiers

## Section 3. Composition and ingredient information

Ingredient name	% (w/w)	CAS number
<b>5X SureSolution</b> Dimethyl sulfoxide	100	67-68-5
<b>SureVector Enzyme Mix</b> Glycerol	≥30 - ≤60	56-81-5
<b>Dpnl</b> Glycerol	≥30 - ≤60	56-81-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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


## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	: <b>5X SureSolution</b>	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 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 KanR Selectable Marker	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector ChIR Selectable Marker	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector pUC Origin	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector XP1 Linker	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector LacI Repressor	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector T7-HIS6 E. coli Promoter	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector LacZ Control (N-term)	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	SureVector Enzyme Mix	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	10X SureVector Buffer	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

## Section 4. First aid measures

### Inhalation

dNTP Mix	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.
Dpnl	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
:  SureSolution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
SureVector AmpR Selectable Marker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector KanR Selectable Marker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector ChIR Selectable Marker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector pUC Origin	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector XP1 Linker	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector LacI Repressor	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector T7-HIS6 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 LacZ Control (N-term)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
SureVector Enzyme Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
10X SureVector Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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.
Dpnl	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

<b>Skin contact</b>	: 5X SureSolution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	SureVector AmpR Selectable Marker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector KanR Selectable Marker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector ChIR Selectable Marker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector pUC Origin	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector XP1 Linker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector LacI Repressor	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector T7-HIS6 E. coli Promoter	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector LacZ Control (N-term)	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SureVector 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.
	dNTP Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	DpnI	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: 5X SureSolution	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	SureVector AmpR Selectable Marker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	SureVector KanR Selectable Marker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical

## Section 4. First aid measures

SureVector ChIR Selectable Marker	personnel. Get medical attention if symptoms occur. Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector pUC Origin	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector XP1 Linker	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector LacI Repressor	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector T7-HIS6 E. coli Promoter	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector LacZ Control (N-term)	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
SureVector 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. 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.
dNTP Mix	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
DpnI	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	:	5X SureSolution	No known significant effects or critical hazards.
		SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
		SureVector KanR Selectable Marker	No known significant effects or critical hazards.
		SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
		SureVector pUC Origin	No known significant effects or critical hazards.

## Section 4. First aid measures

	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
<b>Inhalation</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
<b>Skin contact</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
<b>Ingestion</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.

## Section 4. First aid measures

dNTP Mix No known significant effects or critical hazards.  
DpnI No known significant effects or critical hazards.

### Over-exposure signs/symptoms

#### Eye contact

: 5X SureSolution No specific data.  
SureVector AmpR No specific data.  
Selectable Marker  
SureVector KanR Selectable Marker No specific data.  
SureVector ChIR Selectable Marker No specific data.  
SureVector pUC Origin No specific data.  
SureVector XP1 Linker No specific data.  
SureVector LacI Repressor No specific data.  
SureVector T7-HIS6 E. coli Promoter No specific data.  
SureVector LacZ Control (N-term) No specific data.  
SureVector Enzyme Mix No specific data.  
10X SureVector Buffer No specific data.  
dNTP Mix No specific data.  
DpnI No specific data.

#### Inhalation

: 5X SureSolution No specific data.  
SureVector AmpR No specific data.  
Selectable Marker  
SureVector KanR Selectable Marker No specific data.  
SureVector ChIR Selectable Marker No specific data.  
SureVector pUC Origin No specific data.  
SureVector XP1 Linker No specific data.  
SureVector LacI Repressor No specific data.  
SureVector T7-HIS6 E. coli Promoter No specific data.  
SureVector LacZ Control (N-term) No specific data.  
SureVector Enzyme Mix No specific data.  
10X SureVector Buffer No specific data.  
dNTP Mix No specific data.  
DpnI No specific data.

#### Skin contact

: 5X SureSolution No specific data.  
SureVector AmpR No specific data.  
Selectable Marker  
SureVector KanR Selectable Marker No specific data.  
SureVector ChIR Selectable Marker No specific data.  
SureVector pUC Origin No specific data.  
SureVector XP1 Linker No specific data.  
SureVector LacI Repressor No specific data.  
SureVector T7-HIS6 E. coli Promoter No specific data.  
SureVector LacZ Control (N-term) No specific data.  
SureVector Enzyme Mix No specific data.  
10X SureVector Buffer No specific data.  
dNTP Mix No specific data.  
DpnI No specific data.

## Section 4. First aid measures

<b>Ingestion</b>	: 5X SureSolution	No specific data.
	SureVector AmpR	No specific data.
	Selectable Marker	
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.

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

<b>Notes to physician</b>	: 5X SureSolution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector AmpR	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Selectable Marker	
	SureVector KanR Selectable Marker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector ChIR Selectable Marker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector pUC Origin	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector XP1 Linker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector LacI Repressor	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector T7-HIS6 E. coli Promoter	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector LacZ Control (N-term)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SureVector Enzyme Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	10X SureVector Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	dNTP Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	DpnI	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## Section 4. First aid measures

<b>Specific treatments</b>	: 5X SureSolution	No specific treatment.
	SureVector AmpR	No specific treatment.
	Selectable Marker	
	SureVector KanR Selectable Marker	No specific treatment.
	SureVector ChIR Selectable Marker	No specific treatment.
	SureVector pUC Origin	No specific treatment.
	SureVector XP1 Linker	No specific treatment.
	SureVector LacI Repressor	No specific treatment.
	SureVector T7-HIS6 E. coli Promoter	No specific treatment.
	SureVector LacZ Control (N-term)	No specific treatment.
	SureVector Enzyme Mix	No specific treatment.
	10X SureVector Buffer	No specific treatment.
	dNTP Mix	No specific treatment.
	DpnI	No specific treatment.
<b>Protection of first-aiders</b>	: 5X SureSolution	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	SureVector AmpR	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 KanR Selectable Marker	No action shall be taken involving any personal risk or without suitable training.
	SureVector ChIR Selectable Marker	No action shall be taken involving any personal risk or without suitable training.
	SureVector pUC Origin	No action shall be taken involving any personal risk or without suitable training.
	SureVector XP1 Linker	No action shall be taken involving any personal risk or without suitable training.
	SureVector LacI Repressor	No action shall be taken involving any personal risk or without suitable training.
	SureVector T7-HIS6 E. coli Promoter	No action shall be taken involving any personal risk or without suitable training.
	SureVector LacZ Control (N-term)	No action shall be taken involving any personal risk or without suitable training.
	SureVector Enzyme Mix	No action shall be taken involving any personal risk or without suitable training.
	10X SureVector Buffer	No action shall be taken involving any personal risk or without suitable training.
	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.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	: 5X SureSolution	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	SureVector AmpR	Use an extinguishing agent suitable for the surrounding fire.
	Selectable Marker	
	SureVector KanR Selectable Marker	Use an extinguishing agent suitable for the surrounding fire.
	SureVector ChIR Selectable Marker	Use an extinguishing agent suitable for the surrounding fire.
	SureVector pUC Origin	Use an extinguishing agent suitable for the surrounding fire.
	SureVector XP1 Linker	Use an extinguishing agent suitable for the surrounding fire.

## Section 5. Firefighting measures

	SureVector LacI Repressor	surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
	SureVector T7-HIS6 E. coli Promoter	Use an extinguishing agent suitable for the surrounding fire.
	SureVector LacZ Control (N-term)	Use an extinguishing agent suitable for the surrounding fire.
	SureVector Enzyme Mix	Use an extinguishing agent suitable for the surrounding fire.
	10X SureVector Buffer	Use an extinguishing agent suitable for the surrounding fire.
	dNTP Mix	Use an extinguishing agent suitable for the surrounding fire.
	DpnI	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: 5X SureSolution	Do not use water jet.
	SureVector AmpR Selectable Marker	None known.
	SureVector KanR Selectable Marker	None known.
	SureVector ChIR Selectable Marker	None known.
	SureVector pUC Origin	None known.
	SureVector XP1 Linker	None known.
	SureVector LacI Repressor	None known.
	SureVector T7-HIS6 E. coli Promoter	None known.
	SureVector LacZ Control (N-term)	None known.
	SureVector Enzyme Mix	None known.
	10X SureVector Buffer	None known.
	dNTP Mix	None known.
	DpnI	None known.
<b>Specific hazards arising from the chemical</b>	: 5X SureSolution	Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
	SureVector AmpR Selectable Marker	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector KanR Selectable Marker	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector ChIR Selectable Marker	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector pUC Origin	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector XP1 Linker	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector LacI Repressor	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector T7-HIS6 E. coli Promoter	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector LacZ Control (N-term)	In a fire or if heated, a pressure increase will occur and the container may burst.
	SureVector Enzyme Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	10X SureVector Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.

## Section 5. Firefighting measures

	dNTP Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	Dpnl	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	: 5X SureSolution	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	10X SureVector Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides halogenated compounds metal oxide/oxides
	dNTP Mix	No specific data.
	Dpnl	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
<b>Special protective actions for fire-fighters</b>	: 5X SureSolution	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	SureVector AmpR Selectable Marker	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	SureVector KanR Selectable Marker	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	SureVector ChIR Selectable Marker	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	SureVector pUC Origin	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No

## Section 5. Firefighting measures

		action shall be taken involving any personal risk or without suitable training.
	SureVector XP1 Linker	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	SureVector LacI Repressor	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	SureVector T7-HIS6 E. coli Promoter	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	SureVector LacZ Control (N-term)	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	SureVector Enzyme Mix	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	10X SureVector Buffer	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	dNTP Mix	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or 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.
<b>Special protective equipment for fire-fighters</b>	: 5X SureSolution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SureVector AmpR Selectable Marker	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SureVector KanR Selectable Marker	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SureVector ChIR Selectable Marker	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SureVector pUC Origin	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SureVector XP1 Linker	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SureVector LacI Repressor	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SureVector T7-HIS6 E. coli	Fire-fighters should wear appropriate protective

## Section 5. Firefighting measures

Promoter	equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector LacZ Control (N-term)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
SureVector Enzyme Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
10X SureVector Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
dNTP Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
DpnI	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SureVector AmpR Selectable Marker

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

SureVector KanR Selectable Marker

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

SureVector ChIR Selectable Marker

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

## Section 6. Accidental release measures

	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-HIS6 E. coli Promoter	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
SureVector LacZ Control (N-term)	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
SureVector Enzyme Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
10X SureVector Buffer	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
dNTP Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
DpnI	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
<b>For emergency responders</b> : 5X SureSolution	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector AmpR Selectable Marker	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SureVector KanR 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 ChIR 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

## Section 6. Accidental release measures

SureVector XP1 Linker	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-HIS6 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 LacZ Control (N-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 unsuitable materials. See also the information in "For non-emergency personnel".
DpnI	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### Environmental precautions : 5X SureSolution

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 KanR 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 ChIR 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.

## Section 6. Accidental release measures

	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-HIS6 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 LacZ Control (N-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).

### Methods and material for containment and cleaning up

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

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

## Section 6. Accidental release measures

	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-HIS6 E. coli Promoter	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
SureVector LacZ Control (N-term)	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
SureVector Enzyme Mix	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
10X SureVector Buffer	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
dNTP Mix	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
DpnI	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : 5X SureSolution

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

SureVector AmpR Selectable Marker Put on appropriate personal protective equipment (see Section 8).

SureVector KanR Selectable Marker Put on appropriate personal protective equipment (see Section 8).

SureVector ChIR Selectable Marker Put on appropriate personal protective equipment (see Section 8).

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

SureVector XP1 Linker Put on appropriate personal protective equipment (see Section 8).

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

SureVector T7-HIS6 E. coli Promoter Put on appropriate personal protective equipment (see Section 8).

SureVector LacZ Control (N-term) Put on appropriate personal protective equipment (see Section 8).

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

10X SureVector Buffer Put on appropriate personal protective equipment (see Section 8).

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 8 for additional information on hygiene measures.

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

SureVector ChIR Selectable Eating, drinking and smoking should be prohibited in

## Section 7. Handling and storage

Marker	areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector pUC Origin	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector XP1 Linker	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector LacI Repressor	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector T7-HIS6 E. coli Promoter	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector LacZ Control (N-term)	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
SureVector Enzyme Mix	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
10X SureVector Buffer	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
dNTP Mix	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
DpnI	Eating, drinking and smoking should be prohibited in

## Section 7. Handling and storage

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.

**Conditions for safe storage, including any incompatibilities** : 5X SureSolution

SureVector AmpR  
Selectable Marker

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in 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.

SureVector KanR 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 ChIR 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

## Section 7. Handling and storage

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

## Section 7. Handling and storage

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. 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.

Dpnl

## Section 8. Exposure controls and personal protection

### [Control parameters](#)

### [Occupational exposure limits](#)

Ingredient name	Exposure limits
<b>5X SureSolution</b> Dimethyl sulfoxide	<b>DFG MAC-values list (Germany, 8/2020).</b> <b>Absorbed through skin.</b> PEAK: 320 mg/m <sup>3</sup> , 4 times per shift, 15 minutes. TWA: 160 mg/m <sup>3</sup> 8 hours. PEAK: 100 ppm, 4 times per shift, 15 minutes. TWA: 50 ppm 8 hours.
<b>SureVector Enzyme Mix</b> Glycerol	<b>Safe Work Australia (Australia, 12/2019).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
<b>Dpnl</b> Glycerol	<b>Safe Work Australia (Australia, 12/2019).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.

### [Appropriate engineering controls](#)

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### [Environmental exposure controls](#)

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### [Individual protection measures](#)

## Section 8. Exposure controls and personal protection

- 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.

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

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

### Appearance

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

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

		SureVector LacZ Control (N-term)	Not available.
		SureVector Enzyme Mix	Not available.
		10X SureVector Buffer	Not available.
		dNTP Mix	Not available.
		DpnI	Not available.
<b>Odour</b>	:	5X SureSolution	Odourless. [Slight]
		SureVector AmpR	Not available.
		Selectable Marker	
		SureVector KanR Selectable Marker	Not available.
		SureVector ChIR Selectable Marker	Not available.
		SureVector pUC Origin	Not available.
		SureVector XP1 Linker	Not available.
		SureVector LacI Repressor	Not available.
		SureVector T7-HIS6 E. coli Promoter	Not available.
		SureVector LacZ Control (N-term)	Not available.
		SureVector Enzyme Mix	Not available.
		10X SureVector Buffer	Not available.
		dNTP Mix	Not available.
		DpnI	Not available.
<b>Odour threshold</b>	:	5X SureSolution	Not available.
		SureVector AmpR	Not available.
		Selectable Marker	
		SureVector KanR Selectable Marker	Not available.
		SureVector ChIR Selectable Marker	Not available.
		SureVector pUC Origin	Not available.
		SureVector XP1 Linker	Not available.
		SureVector LacI Repressor	Not available.
		SureVector T7-HIS6 E. coli Promoter	Not available.
		SureVector LacZ Control (N-term)	Not available.
		SureVector Enzyme Mix	Not available.
		10X SureVector Buffer	Not available.
		dNTP Mix	Not available.
		DpnI	Not available.
<b>pH</b>	:	5X SureSolution	Not available.
		SureVector AmpR	8
		Selectable Marker	
		SureVector KanR Selectable Marker	8
		SureVector ChIR Selectable Marker	8
		SureVector pUC Origin	8
		SureVector XP1 Linker	8
		SureVector LacI Repressor	8
		SureVector T7-HIS6 E. coli Promoter	8
		SureVector LacZ Control (N-term)	8
		SureVector Enzyme Mix	8.2
		10X SureVector Buffer	8.8
		dNTP Mix	7.5
		DpnI	7.5

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

<b>Melting point/freezing point</b>	: 5X SureSolution	18.5°C (65.3°F)	
	SureVector AmpR	0°C (32°F)	
	Selectable Marker		
	SureVector KanR Selectable Marker	0°C (32°F)	
	SureVector ChIR Selectable Marker	0°C (32°F)	
	SureVector pUC Origin	0°C (32°F)	
	SureVector XP1 Linker	0°C (32°F)	
	SureVector LacI Repressor	0°C (32°F)	
	SureVector T7-HIS6 E. coli Promoter	0°C (32°F)	
	SureVector LacZ Control (N-term)	0°C (32°F)	
	SureVector Enzyme Mix	Not available.	
	10X SureVector Buffer	Not available.	
	dNTP Mix	0°C (32°F)	
	DpnI	Not available.	
	<b>Boiling point, initial boiling point, and boiling range</b>	: 5X SureSolution	189°C (372.2°F)
		SureVector AmpR	100°C (212°F)
		Selectable Marker	
SureVector KanR Selectable Marker		100°C (212°F)	
SureVector ChIR Selectable Marker		100°C (212°F)	
SureVector pUC Origin		100°C (212°F)	
SureVector XP1 Linker		100°C (212°F)	
SureVector LacI Repressor		100°C (212°F)	
SureVector T7-HIS6 E. coli Promoter		100°C (212°F)	
SureVector LacZ Control (N-term)		100°C (212°F)	
SureVector Enzyme Mix		Not available.	
10X SureVector Buffer		Not available.	
dNTP Mix		100°C (212°F)	
DpnI		Not available.	
<b>Flash point</b>		: 5X SureSolution	Closed cup: 87°C (188.6°F) [ASTM D 93] Open cup: 87°C (188.6°F)
		SureVector AmpR	Not available.
		Selectable Marker	
	SureVector KanR Selectable Marker	Not available.	
	SureVector ChIR Selectable Marker	Not available.	
	SureVector pUC Origin	Not available.	
	SureVector XP1 Linker	Not available.	
	SureVector LacI Repressor	Not available.	
	SureVector T7-HIS6 E. coli Promoter	Not available.	
	SureVector LacZ Control (N-term)	Not available.	
	SureVector Enzyme Mix	Not available.	
	10X SureVector Buffer	Not available.	
	dNTP Mix	Not available.	
	DpnI	Not available.	

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

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
<b>SureVector AmpR Selectable Marker</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector KanR Selectable Marker</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector ChIR Selectable Marker</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector pUC Origin</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector XP1 Linker</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector LacI Repressor</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector T7-HIS6 E. coli Promoter</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector LacZ Control (N-term)</b>						
Edetic acid	>100	>212	DIN 51758			
<b>SureVector Enzyme Mix</b>						
Edetic acid	>100	>212	DIN 51758			
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	>109.85	>229.7				
<b>10X SureVector Buffer</b>						
Polyoxyethylene octyl phenyl ether	>109.85	>229.7				
<b>dNTP Mix</b>						
Edetic acid	>100	>212	DIN 51758			
<b>Dpnl</b>						
Edetic acid	>100	>212	DIN 51758			
(R*,R*)-1,4-Dimercaptobutane-2,3-diol	>110	>230				

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

<b>Evaporation rate</b>	:	5X SureSolution	0.026 (butyl acetate = 1)
		SureVector AmpR Selectable Marker	Not available.
		SureVector KanR Selectable Marker	Not available.
		SureVector ChIR Selectable Marker	Not available.
		SureVector pUC Origin	Not available.
		SureVector XP1 Linker	Not available.
		SureVector LacI Repressor	Not available.
		SureVector T7-HIS6 E. coli Promoter	Not available.
		SureVector LacZ Control (N-term)	Not available.
		SureVector Enzyme Mix	Not available.
		10X SureVector Buffer	Not available.
		dNTP Mix	Not available.
		DpnI	Not available.
<b>Flammability</b>	:	5X SureSolution	Not applicable.
		SureVector AmpR Selectable Marker	Not applicable.
		SureVector KanR Selectable Marker	Not applicable.
		SureVector ChIR Selectable Marker	Not applicable.
		SureVector pUC Origin	Not applicable.
		SureVector XP1 Linker	Not applicable.
		SureVector LacI Repressor	Not applicable.
		SureVector T7-HIS6 E. coli Promoter	Not applicable.
		SureVector LacZ Control (N-term)	Not applicable.
		SureVector Enzyme Mix	Not applicable.
		10X SureVector Buffer	Not applicable.
		dNTP Mix	Not applicable.
		DpnI	Not applicable.
<b>Lower and upper explosion limit/flammability limit</b>	:	5X SureSolution	Lower: 2.6% Upper: 28.5%
		SureVector AmpR Selectable Marker	Not available.
		SureVector KanR Selectable Marker	Not available.
		SureVector ChIR Selectable Marker	Not available.
		SureVector pUC Origin	Not available.
		SureVector XP1 Linker	Not available.
		SureVector LacI Repressor	Not available.
		SureVector T7-HIS6 E. coli Promoter	Not available.
		SureVector LacZ Control (N-term)	Not available.
		SureVector Enzyme Mix	Not available.
		10X SureVector Buffer	Not available.
		dNTP Mix	Not available.
		DpnI	Not available.

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

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

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<b>SureVector AmpR Selectable Marker</b>						
water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	
<b>SureVector KanR Selectable Marker</b>						
water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	
<b>SureVector ChIR Selectable Marker</b>						
water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	
<b>SureVector pUC Origin</b>						
water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	
<b>SureVector XP1 Linker</b>						
water	23.8	3.2		92.258	12.3	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001	
<b>SureVector LacI Repressor</b>						

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

water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001
<b>SureVector T7-HIS6 E. coli Promoter</b>					
water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001
<b>SureVector LacZ Control (N-term)</b>					
water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001
<b>SureVector Enzyme Mix</b>					
water	23.8	3.2		92.258	12.3
Sorbitan monolaurate, ethoxylated	<1	<0.13			
<b>10X SureVector Buffer</b>					
water	23.8	3.2		92.258	12.3
Polyoxyethylene octyl phenyl ether	<1	<0.13			
<b>dNTP Mix</b>					
water	23.8	3.2		92.258	12.3
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	0.000027	0.0000036		0.000007501	0.000001
<b>Dpnl</b>					
water	23.8	3.2		92.258	12.3
Glycerol	0.000075	0.00001		0.0025	0.00033

<b>Relative vapour density</b>	: 5X SureSolution	2.7 [Air = 1]
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.

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

	DpnI	Not available.
<b>Relative density</b>	: 5X SureSolution	1.1
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
	DpnI	Not available.
<b>Solubility</b>	: <input checked="" type="checkbox"/> 5X SureSolution	Easily soluble in the following materials: cold water and hot water.
	SureVector AmpR Selectable Marker	Easily soluble in the following materials: cold water and hot water.
	SureVector KanR Selectable Marker	Easily soluble in the following materials: cold water and hot water.
	SureVector ChIR Selectable Marker	Easily soluble in the following materials: cold water and hot water.
	SureVector pUC Origin	Easily soluble in the following materials: cold water and hot water.
	SureVector XP1 Linker	Easily soluble in the following materials: cold water and hot water.
	SureVector LacI Repressor	Easily soluble in the following materials: cold water and hot water.
	SureVector T7-HIS6 E. coli Promoter	Easily soluble in the following materials: cold water and hot water.
	SureVector LacZ Control (N-term)	Easily soluble in the following materials: cold water and hot water.
	SureVector Enzyme Mix	Soluble in the following materials: cold water and hot water.
	10X SureVector Buffer	Easily soluble in the following materials: cold water and hot water.
	dNTP Mix	Easily soluble in the following materials: cold water and hot water.
	DpnI	Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: <input checked="" type="checkbox"/> 5X SureSolution	-1.35
	SureVector AmpR Selectable Marker	Not applicable.
	SureVector KanR Selectable Marker	Not applicable.
	SureVector ChIR Selectable Marker	Not applicable.
	SureVector pUC Origin	Not applicable.
	SureVector XP1 Linker	Not applicable.
	SureVector LacI Repressor	Not applicable.
	SureVector T7-HIS6 E. coli Promoter	Not applicable.
	SureVector LacZ Control (N-term)	Not applicable.
	SureVector Enzyme Mix	Not applicable.
	10X SureVector Buffer	Not applicable.

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

<b>Auto-ignition temperature</b>	dNTP Mix	Not applicable.
	DpnI	Not applicable.
	5X SureSolution	300 to 302°C (572 to 575.6°F)
	SureVector AmpR Selectable Marker	Not available.
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Not available.
	10X SureVector Buffer	Not available.
	dNTP Mix	Not available.
DpnI	Not available.	

Ingredient name	°C	°F	Method
<b>SureVector AmpR Selectable Marker</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector KanR Selectable Marker</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector ChIR Selectable Marker</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector pUC Origin</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector XP1 Linker</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector LacI Repressor</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector T7-HIS6 E. coli Promoter</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector LacZ Control (N-term)</b>			
Edetic acid	>400	>752	VDI 2263
<b>SureVector Enzyme Mix</b>			
Glycerol	370	698	
Edetic acid	>400	>752	VDI 2263
<b>dNTP Mix</b>			
Edetic acid	>400	>752	VDI 2263

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

<b>Dpnl</b>				
Glycerol	370	698		
Edetic acid	>400	>752		VDI 2263

**Decomposition temperature** : 5X SureSolution 140 to 189°C (284 to 372.2°F)  
 SureVector AmpR Not available.  
 Selectable Marker  
 SureVector KanR Selectable Marker Not available.  
 SureVector ChIR Selectable Marker Not available.  
 SureVector pUC Origin Not available.  
 SureVector XP1 Linker Not available.  
 SureVector LacI Repressor Not available.  
 SureVector T7-HIS6 E. coli Promoter Not available.  
 SureVector LacZ Control (N-term) Not available.  
 SureVector Enzyme Mix Not available.  
 10X SureVector Buffer Not available.  
 dNTP Mix Not available.  
 Dpnl Not available.

**Viscosity** :  5X SureSolution Dynamic: 2.14 mPa·s (2.14 cP)  
 SureVector AmpR Not available.  
 Selectable Marker  
 SureVector KanR Selectable Marker Not available.  
 SureVector ChIR Selectable Marker Not available.  
 SureVector pUC Origin Not available.  
 SureVector XP1 Linker Not available.  
 SureVector LacI Repressor Not available.  
 SureVector T7-HIS6 E. coli Promoter Not available.  
 SureVector LacZ Control (N-term) Not available.  
 SureVector Enzyme Mix Not available.  
 10X SureVector Buffer Not available.  
 dNTP Mix Not available.  
 Dpnl Not available.

### Particle characteristics

**Median particle size** :  5X SureSolution Not applicable.  
 SureVector AmpR Not applicable.  
 Selectable Marker  
 SureVector KanR Selectable Marker Not applicable.  
 SureVector ChIR Selectable Marker Not applicable.  
 SureVector pUC Origin Not applicable.  
 SureVector XP1 Linker Not applicable.  
 SureVector LacI Repressor Not applicable.  
 SureVector T7-HIS6 E. coli Promoter Not applicable.  
 SureVector LacZ Control (N-term) Not applicable.  
 SureVector Enzyme Mix Not applicable.  
 10X SureVector Buffer Not applicable.  
 dNTP Mix Not applicable.  
 Dpnl Not applicable.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: 5X SureSolution  SureVector AmpR Selectable Marker SureVector KanR Selectable Marker SureVector ChIR Selectable Marker SureVector pUC Origin  SureVector XP1 Linker  SureVector LacI Repressor  SureVector T7-HIS6 E. coli Promoter SureVector LacZ Control (N-term) SureVector Enzyme Mix  10X SureVector Buffer  dNTP Mix  DpnI	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. 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.
<b>Chemical stability</b>	: 5X SureSolution SureVector AmpR Selectable Marker SureVector KanR Selectable Marker SureVector ChIR Selectable Marker SureVector pUC Origin SureVector XP1 Linker SureVector LacI Repressor SureVector T7-HIS6 E. coli Promoter SureVector LacZ Control (N-term) SureVector Enzyme Mix 10X SureVector Buffer dNTP Mix DpnI	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
<b>Possibility of hazardous reactions</b>	: 5X SureSolution  SureVector AmpR Selectable Marker SureVector KanR Selectable Marker SureVector ChIR Selectable Marker SureVector pUC Origin  SureVector XP1 Linker  SureVector LacI Repressor  SureVector T7-HIS6 E. coli Promoter	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.

## Section 10. Stability and reactivity

SureVector LacZ Control (N-term)	Under normal conditions of storage and use, hazardous reactions will not occur.
SureVector Enzyme Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
10X SureVector Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
dNTP Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
DpnI	Under normal conditions of storage and use, hazardous reactions will not occur.

<b>Conditions to avoid</b>	: 5X SureSolution	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
	SureVector AmpR Selectable Marker	No specific data.
	SureVector KanR Selectable Marker	No specific data.
	SureVector ChIR Selectable Marker	No specific data.
	SureVector pUC Origin	No specific data.
	SureVector XP1 Linker	No specific data.
	SureVector LacI Repressor	No specific data.
	SureVector T7-HIS6 E. coli Promoter	No specific data.
	SureVector LacZ Control (N-term)	No specific data.
	SureVector Enzyme Mix	No specific data.
	10X SureVector Buffer	No specific data.
	dNTP Mix	No specific data.
	DpnI	No specific data.
	<b>Incompatible materials</b>	: 5X SureSolution
SureVector AmpR Selectable Marker		May react or be incompatible with oxidising materials.
SureVector KanR Selectable Marker		May react or be incompatible with oxidising materials.
SureVector ChIR Selectable Marker		May react or be incompatible with oxidising materials.
SureVector pUC Origin		May react or be incompatible with oxidising materials.
SureVector XP1 Linker		May react or be incompatible with oxidising materials.
SureVector LacI Repressor		May react or be incompatible with oxidising materials.
SureVector T7-HIS6 E. coli Promoter		May react or be incompatible with oxidising materials.
SureVector LacZ Control (N-term)		May react or be incompatible with oxidising materials.
SureVector Enzyme Mix		May react or be incompatible with oxidising materials.
10X SureVector Buffer		May react or be incompatible with oxidising materials.
dNTP Mix		May react or be incompatible with oxidising materials.
DpnI		May react or be incompatible with oxidising materials.
<b>Hazardous decomposition products</b>		: 5X SureSolution
	SureVector AmpR Selectable Marker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SureVector KanR Selectable Marker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 10. Stability and reactivity

SureVector ChIR Selectable Marker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector pUC Origin	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector XP1 Linker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector LacI Repressor	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector T7-HIS6 E. coli Promoter	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector LacZ Control (N-term)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SureVector Enzyme Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
10X SureVector Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
dNTP Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
DpnI	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>5X SureSolution</b> Dimethyl sulfoxide	LD50 Dermal LD50 Oral	Rat Rat	40000 mg/kg 14500 mg/kg	- -
<b>SureVector Enzyme Mix</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-
<b>DpnI</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>5X SureSolution</b> Dimethyl sulfoxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	100 mg	-
<b>SureVector Enzyme Mix</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

## Section 11. Toxicological information

Dpnl Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

### Sensitisation

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.

<b>Information on likely routes of exposure</b>	5X SureSolution	Routes of entry anticipated: Oral, Dermal, Inhalation.
	SureVector AmpR	Not available.
	Selectable Marker	
	SureVector KanR Selectable Marker	Not available.
	SureVector ChIR Selectable Marker	Not available.
	SureVector pUC Origin	Not available.
	SureVector XP1 Linker	Not available.
	SureVector LacI Repressor	Not available.
	SureVector T7-HIS6 E. coli Promoter	Not available.
	SureVector LacZ Control (N-term)	Not available.
	SureVector Enzyme Mix	Routes of entry anticipated: Oral, Dermal, Inhalation.
	10X SureVector Buffer	Routes of entry anticipated: Oral, Dermal, Inhalation.
	dNTP Mix	Not available.
	Dpnl	Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

<b>Eye contact</b>	<input checked="" type="checkbox"/> 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR	No known significant effects or critical hazards.
	Selectable Marker	
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.

## Section 11. Toxicological information

	term)	
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
<b>Inhalation</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR	No known significant effects or critical hazards.
	Selectable Marker	
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
<b>Skin contact</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR	No known significant effects or critical hazards.
	Selectable Marker	
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
<b>Ingestion</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR	No known significant effects or critical hazards.
	Selectable Marker	
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.

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

## Section 11. Toxicological information

<b>Eye contact</b>	:	5X SureSolution	No specific data.
		SureVector AmpR	No specific data.
		Selectable Marker	
		SureVector KanR Selectable	No specific data.
		Marker	
		SureVector ChIR Selectable	No specific data.
		Marker	
		SureVector pUC Origin	No specific data.
		SureVector XP1 Linker	No specific data.
		SureVector LacI Repressor	No specific data.
		SureVector T7-HIS6 E. coli	No specific data.
		Promoter	
		SureVector LacZ Control (N-term)	No specific data.
		SureVector Enzyme Mix	No specific data.
		10X SureVector Buffer	No specific data.
dNTP Mix	No specific data.		
DpnI	No specific data.		
<b>Inhalation</b>	:	5X SureSolution	No specific data.
		SureVector AmpR	No specific data.
		Selectable Marker	
		SureVector KanR Selectable	No specific data.
		Marker	
		SureVector ChIR Selectable	No specific data.
		Marker	
		SureVector pUC Origin	No specific data.
		SureVector XP1 Linker	No specific data.
		SureVector LacI Repressor	No specific data.
		SureVector T7-HIS6 E. coli	No specific data.
		Promoter	
		SureVector LacZ Control (N-term)	No specific data.
		SureVector Enzyme Mix	No specific data.
		10X SureVector Buffer	No specific data.
dNTP Mix	No specific data.		
DpnI	No specific data.		
<b>Skin contact</b>	:	5X SureSolution	No specific data.
		SureVector AmpR	No specific data.
		Selectable Marker	
		SureVector KanR Selectable	No specific data.
		Marker	
		SureVector ChIR Selectable	No specific data.
		Marker	
		SureVector pUC Origin	No specific data.
		SureVector XP1 Linker	No specific data.
		SureVector LacI Repressor	No specific data.
		SureVector T7-HIS6 E. coli	No specific data.
		Promoter	
		SureVector LacZ Control (N-term)	No specific data.
		SureVector Enzyme Mix	No specific data.
		10X SureVector Buffer	No specific data.
dNTP Mix	No specific data.		
DpnI	No specific data.		
<b>Ingestion</b>	:	5X SureSolution	No specific data.
		SureVector AmpR	No specific data.
		Selectable Marker	
		SureVector KanR Selectable	No specific data.
		Marker	
		SureVector ChIR Selectable	No specific data.
		Marker	
		SureVector pUC Origin	No specific data.
		SureVector XP1 Linker	No specific data.

## Section 11. Toxicological information

SureVector LacI Repressor	No specific data.
SureVector T7-HIS6 E. coli Promoter	No specific data.
SureVector LacZ Control (N-term)	No specific data.
SureVector Enzyme Mix	No specific data.
10X SureVector Buffer	No specific data.
dNTP Mix	No specific data.
DpnI	No specific data.

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

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

<b>General</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR	No known significant effects or critical hazards.
	Selectable Marker	
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: 5X SureSolution	No known significant effects or critical hazards.
	SureVector AmpR	No known significant effects or critical hazards.
	Selectable Marker	
	SureVector KanR Selectable Marker	No known significant effects or critical hazards.
	SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
	SureVector pUC Origin	No known significant effects or critical hazards.
	SureVector XP1 Linker	No known significant effects or critical hazards.
	SureVector LacI Repressor	No known significant effects or critical hazards.
	SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
	SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
	SureVector Enzyme Mix	No known significant effects or critical hazards.
	10X SureVector Buffer	No known significant effects or critical hazards.
	dNTP Mix	No known significant effects or critical hazards.
	DpnI	No known significant effects or critical hazards.

## Section 11. Toxicological information

<b>Mutagenicity</b>	:	5X SureSolution	No known significant effects or critical hazards.
		SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
		SureVector KanR Selectable Marker	No known significant effects or critical hazards.
		SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
		SureVector pUC Origin	No known significant effects or critical hazards.
		SureVector XP1 Linker	No known significant effects or critical hazards.
		SureVector LacI Repressor	No known significant effects or critical hazards.
		SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
		SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
		SureVector Enzyme Mix	No known significant effects or critical hazards.
		10X SureVector Buffer	No known significant effects or critical hazards.
		dNTP Mix	No known significant effects or critical hazards.
		DpnI	No known significant effects or critical hazards.
	<b>Reproductive toxicity</b>	:	5X SureSolution
		SureVector AmpR Selectable Marker	No known significant effects or critical hazards.
		SureVector KanR Selectable Marker	No known significant effects or critical hazards.
		SureVector ChIR Selectable Marker	No known significant effects or critical hazards.
		SureVector pUC Origin	No known significant effects or critical hazards.
		SureVector XP1 Linker	No known significant effects or critical hazards.
		SureVector LacI Repressor	No known significant effects or critical hazards.
		SureVector T7-HIS6 E. coli Promoter	No known significant effects or critical hazards.
		SureVector LacZ Control (N-term)	No known significant effects or critical hazards.
		SureVector Enzyme Mix	No known significant effects or critical hazards.
		10X SureVector Buffer	No known significant effects or critical hazards.
		dNTP Mix	No known significant effects or critical hazards.
		DpnI	No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
<b>5X SureSolution</b> Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A
<b>SureVector Enzyme Mix</b> Glycerol	12600	N/A	N/A	N/A	N/A
<b>10X SureVector Buffer</b> 10X SureVector Buffer	180000	N/A	N/A	N/A	N/A
<b>DpnI</b> Glycerol	12600	N/A	N/A	N/A	N/A

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
<b>5X SureSolution</b> Dimethyl sulfoxide	Acute LC50 25000 ppm Fresh water  Acute LC50 34000000 µg/l Fresh water Chronic NOEC 100 µl/L Marine water Chronic NOEC 100 µl/L Fresh water	Daphnia - Daphnia magna - Neonate Fish - Pimephales promelas Algae - Ulva lactuca Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours  96 hours 72 hours 21 days
<b>SureVector Enzyme Mix</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
<b>Dpnl</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

### Persistence and degradability

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

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>5X SureSolution</b> Dimethyl sulfoxide	-	-	Not readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>5X SureSolution</b> Dimethyl sulfoxide	-1.35	3.16	low
<b>SureVector Enzyme Mix</b> Glycerol	-1.76	-	low
<b>Dpnl</b> Glycerol	-1.76	-	low

### Mobility in soil

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

## Section 12. Ecological information

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

## Section 13. Disposal considerations

**Disposal methods** : 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. 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

**ADG / IMDG / IATA** : Not regulated as Dangerous Goods according to the ADG Code .

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

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

## Section 15. Regulatory information

### Standard for the Uniform Scheduling of Medicines and Poisons

6

### Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

### 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.

## Section 15. Regulatory information

<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: <input checked="" type="checkbox"/> All components are active or exempted.
<b>Viet Nam</b>	: Not determined.

## Section 16. Any other relevant information

### History

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

### Key to abbreviations

: ADG = Australian Dangerous Goods
: ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
: ATE = Acute Toxicity Estimate
: BCF = Bioconcentration Factor
: GHS = Globally Harmonized System of Classification and Labelling of Chemicals
: IATA = International Air Transport Association
: IBC = Intermediate Bulk Container
: IMDG = International Maritime Dangerous Goods
: LogPow = logarithm of the octanol/water partition coefficient
: MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
: N/A = Not available
: SUSMP = Standard Uniform Schedule of Medicine and Poisons
: UN = United Nations

### Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> SureSolution FLAMMABLE LIQUIDS - Category 4	On basis of test data

**References** : Not available.

Indicates information that has changed from previously issued version.

### Notice to reader

**Disclaimer:** The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.