

# SAFETY DATA SHEET



Uni-ZAP XR Gigapack III Gold Cloning Kit, Part Number 237612

## Section 1. Identification

### 1.1 Product identifier

**Product name** : Uni-ZAP XR Gigapack III Gold Cloning Kit, Part Number 237612

**Part No. (Chemical Kit)** : 237612

**Part No.** :

Gigapack III packaging extract	200201-41
Wild-Type Lambda DNA c1857ind 1 Sam7	246203-51
VCS257 E. coli Strain	200256-51
XL1-Blue MRF' E. coli Strain	200301-81
VCSM13 Interference-Resistant Helper Phage	200251-81
ExAssist Interference-Resistant Helper Phage	200253-81
SOLR Bacterial Strain	200298-81
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	237211-51
pBR322 Test Insert Digested With EcoR I and Sal I	210200-52

**Validation date** : 2016-02-29

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

**Material uses** : Analytical reagent.

Gigapack III packaging extract	0.275 ml (11 x 0.025 ml)
Wild-Type Lambda DNA c1857ind 1 Sam7	0.005 ml (0.21 µg/µl)
VCS257 E. coli Strain	1 ml
XL1-Blue MRF' E. coli Strain	0.5 ml
VCSM13 Interference-Resistant Helper Phage	1 ml (>1 X 10e11 pfu/ml)
ExAssist Interference-Resistant Helper Phage	1 ml (>1 x E10 pfu/ml)
SOLR Bacterial Strain	0.5 ml
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	0.012 ml
pBR322 Test Insert Digested With EcoR I and Sal I	0.01 ml

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

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

### 1.4 Emergency telephone number

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

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

## Section 2. Hazards identification

<b>OSHA/HCS status</b>	:  Gigapack III packaging extract	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	Wild-Type Lambda DNA c1857ind 1 Sam7	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	VCS257 E. coli Strain	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	XL1-Blue MRF' E. coli Strain	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	VCSM13 Interference-Resistant Helper Phage	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	ExAssist Interference-Resistant Helper Phage	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	SOLR Bacterial Strain	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	pBR322 Test Insert Digested With EcoR I and Sal I	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

### Classification of the substance or mixture

<b>VCS257 E. coli Strain</b> H319	EYE IRRITATION - Category 2A
<b>XL1-Blue MRF' E. coli Strain</b> H319	EYE IRRITATION - Category 2A
<b>SOLR Bacterial Strain</b> H319	EYE IRRITATION - Category 2A

### 2.2 GHS label elements

## Section 2. Hazards identification

### Hazard pictograms



### Signal word

: Gigapack III packaging extract	No signal word.
Wild-Type Lambda DNA c1857ind	No signal word.
1 Sam7	
VCS257 E. coli Strain	Warning
XL1-Blue MRF' E. coli Strain	Warning
VCSM13 Interference-Resistant	No signal word.
Helper Phage	
ExAssist Interference-Resistant	No signal word.
Helper Phage	
SOLR Bacterial Strain	Warning
Uni-ZAP XR Vector Predigested	No signal word.
With EcoR I And Xho I	
pBR322 Test Insert Digested With	No signal word.
EcoR I and Sal I	

### Hazard statements

: Gigapack III packaging extract	No known significant effects or critical hazards.
Wild-Type Lambda DNA c1857ind	No known significant effects or critical hazards.
1 Sam7	
VCS257 E. coli Strain	GHS SYMBOL - <b>Exclamation mark</b> - H319 - Causes serious eye irritation.
XL1-Blue MRF' E. coli Strain	GHS SYMBOL - <b>Exclamation mark</b> - H319 - Causes serious eye irritation.
VCSM13 Interference-Resistant	No known significant effects or critical hazards.
Helper Phage	
ExAssist Interference-Resistant	No known significant effects or critical hazards.
Helper Phage	
SOLR Bacterial Strain	GHS SYMBOL - <b>Exclamation mark</b> - H319 - Causes serious eye irritation.
Uni-ZAP XR Vector Predigested	No known significant effects or critical hazards.
With EcoR I And Xho I	
pBR322 Test Insert Digested With	No known significant effects or critical hazards.
EcoR I and Sal I	

### Precautionary statements

#### Prevention

: Gigapack III packaging extract	Not applicable.
Wild-Type Lambda DNA c1857ind	Not applicable.
1 Sam7	
VCS257 E. coli Strain	P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
XL1-Blue MRF' E. coli Strain	P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
VCSM13 Interference-Resistant	Not applicable.
Helper Phage	
ExAssist Interference-Resistant	Not applicable.
Helper Phage	
SOLR Bacterial Strain	P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
Uni-ZAP XR Vector Predigested	Not applicable.
With EcoR I And Xho I	
pBR322 Test Insert Digested With	Not applicable.
EcoR I and Sal I	

## Section 2. Hazards identification

<b>Response</b>	<input checked="" type="checkbox"/>	Gigapack III packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind	Not applicable.
		1 Sam7	
		VCS257 E. coli Strain	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
		XL1-Blue MRF' E. coli Strain	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
		VCSM13 Interference-Resistant Helper Phage	Not applicable.
		ExAssist Interference-Resistant Helper Phage	Not applicable.
		SOLR Bacterial Strain	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
		Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Not applicable.
		pBR322 Test Insert Digested With EcoR I and Sal I	Not applicable.
<b>Storage</b>	<input checked="" type="checkbox"/>	Gigapack III packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind	Not applicable.
		1 Sam7	
		VCS257 E. coli Strain	Not applicable.
		XL1-Blue MRF' E. coli Strain	Not applicable.
		VCSM13 Interference-Resistant Helper Phage	Not applicable.
		ExAssist Interference-Resistant Helper Phage	Not applicable.
		SOLR Bacterial Strain	Not applicable.
		Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Not applicable.
		pBR322 Test Insert Digested With EcoR I and Sal I	Not applicable.
<b>Disposal</b>	<input checked="" type="checkbox"/>	Gigapack III packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind	Not applicable.
		1 Sam7	
		VCS257 E. coli Strain	Not applicable.
		XL1-Blue MRF' E. coli Strain	Not applicable.
		VCSM13 Interference-Resistant Helper Phage	Not applicable.
		ExAssist Interference-Resistant Helper Phage	Not applicable.
		SOLR Bacterial Strain	Not applicable.
		Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Not applicable.
		pBR322 Test Insert Digested With EcoR I and Sal I	Not applicable.

## Section 2. Hazards identification

<b>Supplemental label elements</b>	:	<input checked="" type="checkbox"/> Gigapack III packaging extract	None known.
		Wild-Type Lambda DNA c1857ind 1 Sam7	None known.
		VCS257 E. coli Strain	None known.
		XL1-Blue MRF' E. coli Strain	None known.
		VCSM13 Interference-Resistant Helper Phage	None known.
		ExAssist Interference-Resistant Helper Phage	None known.
		SOLR Bacterial Strain	None known.
		Uni-ZAP XR Vector Predigested With EcoR I And Xho I	None known.
		pBR322 Test Insert Digested With EcoR I and Sal I	None known.

### 2.3 Other hazards

<b>Hazards not otherwise classified</b>	:	<input checked="" type="checkbox"/> Gigapack III packaging extract	None known.
		Wild-Type Lambda DNA c1857ind 1 Sam7	None known.
		VCS257 E. coli Strain	None known.
		XL1-Blue MRF' E. coli Strain	None known.
		VCSM13 Interference-Resistant Helper Phage	None known.
		ExAssist Interference-Resistant Helper Phage	None known.
		SOLR Bacterial Strain	None known.
		Uni-ZAP XR Vector Predigested With EcoR I And Xho I	None known.
		pBR322 Test Insert Digested With EcoR I and Sal I	None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	:	<input checked="" type="checkbox"/> Gigapack III packaging extract	Mixture
		Wild-Type Lambda DNA c1857ind 1 Sam7	Mixture
		VCS257 E. coli Strain	Mixture
		XL1-Blue MRF' E. coli Strain	Mixture
		VCSM13 Interference-Resistant Helper Phage	Mixture
		ExAssist Interference-Resistant Helper Phage	Mixture
		SOLR Bacterial Strain	Mixture
		Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Mixture
		pBR322 Test Insert Digested With EcoR I and Sal I	Mixture

Ingredient name	%	CAS number
<b>VCS257 E. coli Strain</b>		
Glycerol	≥10 - ≤25	56-81-5
Sodium chloride	≤3	7647-14-5
<b>XL1-Blue MRF' E. coli Strain</b>		
Glycerol	≥10 - ≤25	56-81-5
Sodium chloride	≤3	7647-14-5
<b>SOLR Bacterial Strain</b>		

### Section 3. Composition/information on ingredients

Glycerol	≥10 - ≤25	56-81-5
Sodium chloride	≤3	7647-14-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.


**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified 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

#### 4.1 Description of necessary first aid measures

##### Eye contact

- :  Gigapack III packaging extract  
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.
- Wild-Type Lambda DNA c1857ind 1 Sam7  
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.
- VCS257 E. coli Strain  
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.
- XL1-Blue MRF' E. coli Strain  
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.
- VCSM13 Interference-Resistant Helper Phage  
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.
- ExAssist Interference-Resistant Helper Phage  
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.
- SOLR Bacterial Strain  
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.
- Uni-ZAP XR Vector Predigested With EcoR I And Xho I  
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.
- pBR322 Test Insert Digested With EcoR I and Sal I  
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

##### Inhalation

- :  Gigapack III packaging extract  
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Wild-Type Lambda DNA c1857ind 1 Sam7  
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- VCS257 E. coli Strain  
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not

## Section 4. First aid measures

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.

XL1-Blue MRF' E. coli Strain

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.

VCSM13 Interference-Resistant Helper Phage

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

ExAssist Interference-Resistant Helper Phage

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

SOLR Bacterial Strain

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.

Uni-ZAP XR Vector Predigested With EcoR I And Xho I

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

pBR322 Test Insert Digested With EcoR I and Sal I

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

### Skin contact

:  Gigapack III packaging extract

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

Wild-Type Lambda DNA c1857ind 1 Sam7

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

VCS257 E. coli Strain


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.

XL1-Blue MRF' E. coli Strain

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get



## Section 4. First aid measures

	VCSM13 Interference-Resistant Helper Phage	medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	ExAssist Interference-Resistant Helper Phage	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SOLR Bacterial Strain	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.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pBR322 Test Insert Digested With EcoR I and Sal I	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	:  Gigapack III packaging extract	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
	VCS257 E. coli Strain	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
	XL1-Blue MRF' E. coli Strain	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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



## Section 4. First aid measures

VCSM13 Interference-Resistant Helper Phage	<p>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.</p> <p>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.</p>
ExAssist Interference-Resistant Helper Phage	<p>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.</p>
SOLR Bacterial Strain	<p>Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.</p>
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	<p>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.</p>
pBR322 Test Insert Digested With EcoR I and Sal I	<p>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.</p>

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

#### Potential acute health effects

## Section 4. First aid measures

<b>Eye contact</b>	:	☒ Gigapack III packaging extract	No known significant effects or critical hazards.
		Wild-Type Lambda DNA c1857ind	No known significant effects or critical hazards.
		1 Sam7	
		VCS257 E. coli Strain	Causes serious eye irritation.
		XL1-Blue MRF' E. coli Strain	Causes serious eye irritation.
		VCSM13 Interference-Resistant	No known significant effects or critical hazards.
		Helper Phage	
		ExAssist Interference-Resistant	No known significant effects or critical hazards.
		Helper Phage	
		SOLR Bacterial Strain	Causes serious eye irritation.
Uni-ZAP XR Vector Predigested	No known significant effects or critical hazards.		
With EcoR I And Xho I			
pBR322 Test Insert Digested With	No known significant effects or critical hazards.		
EcoR I and Sal I			
<b>Inhalation</b>	:	☒ Gigapack III packaging extract	No known significant effects or critical hazards.
		Wild-Type Lambda DNA c1857ind	No known significant effects or critical hazards.
		1 Sam7	
		VCS257 E. coli Strain	No known significant effects or critical hazards.
		XL1-Blue MRF' E. coli Strain	No known significant effects or critical hazards.
		VCSM13 Interference-Resistant	No known significant effects or critical hazards.
		Helper Phage	
		ExAssist Interference-Resistant	No known significant effects or critical hazards.
		Helper Phage	
		SOLR Bacterial Strain	No known significant effects or critical hazards.
Uni-ZAP XR Vector Predigested	No known significant effects or critical hazards.		
With EcoR I And Xho I			
pBR322 Test Insert Digested With	No known significant effects or critical hazards.		
EcoR I and Sal I			
<b>Skin contact</b>	:	☒ Gigapack III packaging extract	No known significant effects or critical hazards.
		Wild-Type Lambda DNA c1857ind	No known significant effects or critical hazards.
		1 Sam7	
		VCS257 E. coli Strain	No known significant effects or critical hazards.
		XL1-Blue MRF' E. coli Strain	No known significant effects or critical hazards.
		VCSM13 Interference-Resistant	No known significant effects or critical hazards.
		Helper Phage	
		ExAssist Interference-Resistant	No known significant effects or critical hazards.
		Helper Phage	
		SOLR Bacterial Strain	No known significant effects or critical hazards.
Uni-ZAP XR Vector Predigested	No known significant effects or critical hazards.		
With EcoR I And Xho I			
pBR322 Test Insert Digested With	No known significant effects or critical hazards.		
EcoR I and Sal I			
<b>Ingestion</b>	:	☒ Gigapack III packaging extract	No known significant effects or critical hazards.
		Wild-Type Lambda DNA c1857ind	No known significant effects or critical hazards.
		1 Sam7	
		VCS257 E. coli Strain	No known significant effects or critical hazards.
		XL1-Blue MRF' E. coli Strain	No known significant effects or critical hazards.
		VCSM13 Interference-Resistant	No known significant effects or critical hazards.
		Helper Phage	
		ExAssist Interference-Resistant	No known significant effects or critical hazards.
		Helper Phage	
		SOLR Bacterial Strain	No known significant effects or critical hazards.
Uni-ZAP XR Vector Predigested	No known significant effects or critical hazards.		
With EcoR I And Xho I			
pBR322 Test Insert Digested With	No known significant effects or critical hazards.		
EcoR I and Sal I			

### Over-exposure signs/symptoms

## Section 4. First aid measures

<b>Eye contact</b>	:	Gigapack III packaging extract	No specific data.
		Wild-Type Lambda DNA c1857ind	No specific data.
		1 Sam7	
		VCS257 E. coli Strain	Adverse symptoms may include the following: pain or irritation watering redness
		XL1-Blue MRF' E. coli Strain	Adverse symptoms may include the following: pain or irritation watering redness
		VCSM13 Interference-Resistant Helper Phage	No specific data.
		ExAssist Interference-Resistant Helper Phage	No specific data.
		SOLR Bacterial Strain	Adverse symptoms may include the following: pain or irritation watering redness
		Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No specific data.
		pBR322 Test Insert Digested With EcoR I and Sal I	No specific data.
<b>Inhalation</b>	:	Gigapack III packaging extract	No specific data.
		Wild-Type Lambda DNA c1857ind	No specific data.
		1 Sam7	
		VCS257 E. coli Strain	No specific data.
		XL1-Blue MRF' E. coli Strain	No specific data.
		VCSM13 Interference-Resistant Helper Phage	No specific data.
		ExAssist Interference-Resistant Helper Phage	No specific data.
		SOLR Bacterial Strain	No specific data.
		Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No specific data.
		pBR322 Test Insert Digested With EcoR I and Sal I	No specific data.
<b>Skin contact</b>	:	Gigapack III packaging extract	No specific data.
		Wild-Type Lambda DNA c1857ind	No specific data.
		1 Sam7	
		VCS257 E. coli Strain	No specific data.
		XL1-Blue MRF' E. coli Strain	No specific data.
		VCSM13 Interference-Resistant Helper Phage	No specific data.
		ExAssist Interference-Resistant Helper Phage	No specific data.
		SOLR Bacterial Strain	No specific data.
		Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No specific data.
		pBR322 Test Insert Digested With EcoR I and Sal I	No specific data.
<b>Ingestion</b>	:	Gigapack III packaging extract	No specific data.
		Wild-Type Lambda DNA c1857ind	No specific data.
		1 Sam7	
		VCS257 E. coli Strain	No specific data.
		XL1-Blue MRF' E. coli Strain	No specific data.
VCSM13 Interference-Resistant Helper Phage	No specific data.		

## Section 4. First aid measures

ExAssist Interference-Resistant Helper Phage	No specific data.
SOLR Bacterial Strain	No specific data.
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No specific data.
pBR322 Test Insert Digested With EcoR I and Sal I	No specific data.

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

<b>Notes to physician</b>	:	<p>Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain XL1-Blue MRF' E. coli Strain VCSM13 Interference-Resistant Helper Phage ExAssist Interference-Resistant Helper Phage SOLR Bacterial Strain Uni-ZAP XR Vector Predigested With EcoR I And Xho I pBR322 Test Insert Digested With EcoR I and Sal I</p>	<p>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</p>
<b>Specific treatments</b>	:	<p>Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain XL1-Blue MRF' E. coli Strain VCSM13 Interference-Resistant Helper Phage ExAssist Interference-Resistant Helper Phage SOLR Bacterial Strain Uni-ZAP XR Vector Predigested With EcoR I And Xho I pBR322 Test Insert Digested With EcoR I and Sal I</p>	<p>No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.</p>
<b>Protection of first-aiders</b>	:	<p>Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain</p>	<p>No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. 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.</p>

## Section 4. First aid measures

XL1-Blue MRF' E. coli Strain	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.
VCSM13 Interference-Resistant Helper Phage	No action shall be taken involving any personal risk or without suitable training.
ExAssist Interference-Resistant Helper Phage	No action shall be taken involving any personal risk or without suitable training.
SOLR Bacterial Strain	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.
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No action shall be taken involving any personal risk or without suitable training.
pBR322 Test Insert Digested With EcoR I and Sal I	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

: Gigapack III packaging extract	Use an extinguishing agent suitable for the surrounding fire.
Wild-Type Lambda DNA c1857ind 1 Sam7	Use an extinguishing agent suitable for the surrounding fire.
VCS257 E. coli Strain	Use an extinguishing agent suitable for the surrounding fire.
XL1-Blue MRF' E. coli Strain	Use an extinguishing agent suitable for the surrounding fire.
VCSM13 Interference-Resistant Helper Phage	Use an extinguishing agent suitable for the surrounding fire.
ExAssist Interference-Resistant Helper Phage	Use an extinguishing agent suitable for the surrounding fire.
SOLR Bacterial Strain	Use an extinguishing agent suitable for the surrounding fire.
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Use an extinguishing agent suitable for the surrounding fire.
pBR322 Test Insert Digested With EcoR I and Sal I	Use an extinguishing agent suitable for the surrounding fire.


#### Unsuitable extinguishing media

: Gigapack III packaging extract	None known.
Wild-Type Lambda DNA c1857ind 1 Sam7	None known.
VCS257 E. coli Strain	None known.
XL1-Blue MRF' E. coli Strain	None known.
VCSM13 Interference-Resistant Helper Phage	None known.
ExAssist Interference-Resistant Helper Phage	None known.
SOLR Bacterial Strain	None known.
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	None known.
pBR322 Test Insert Digested With EcoR I and Sal I	None known.


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

## Section 5. Fire-fighting measures

### Specific hazards arising from the chemical

:  Gigapack III packaging extract	In a fire or if heated, a pressure increase will occur and the container may burst.
Wild-Type Lambda DNA c1857ind 1 Sam7	In a fire or if heated, a pressure increase will occur and the container may burst.
VCS257 E. coli Strain	In a fire or if heated, a pressure increase will occur and the container may burst.
XL1-Blue MRF' E. coli Strain	In a fire or if heated, a pressure increase will occur and the container may burst.
VCSM13 Interference-Resistant Helper Phage	In a fire or if heated, a pressure increase will occur and the container may burst.
ExAssist Interference-Resistant Helper Phage	In a fire or if heated, a pressure increase will occur and the container may burst.
SOLR Bacterial Strain	In a fire or if heated, a pressure increase will occur and the container may burst.
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	In a fire or if heated, a pressure increase will occur and the container may burst.
pBR322 Test Insert Digested With EcoR I and Sal I	In a fire or if heated, a pressure increase will occur and the container may burst.

### Hazardous thermal decomposition products


:  Gigapack III packaging extract	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
VCS257 E. coli Strain	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
XL1-Blue MRF' E. coli Strain	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
VCSM13 Interference-Resistant Helper Phage	No specific data.
ExAssist Interference-Resistant Helper Phage	No specific data.
SOLR Bacterial Strain	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No specific data.
pBR322 Test Insert Digested With EcoR I and Sal I	No specific data.

### 5.3 Advice for firefighters




## Section 5. Fire-fighting measures

### Special protective actions for fire-fighters

:  Gigapack III packaging extract	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.
Wild-Type Lambda DNA c1857ind 1 Sam7	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.
VCS257 E. coli Strain	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.
XL1-Blue MRF' E. coli Strain	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.
VCSM13 Interference-Resistant Helper Phage	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.
ExAssist Interference-Resistant Helper Phage	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.
SOLR Bacterial Strain	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.
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	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.
pBR322 Test Insert Digested With EcoR I and Sal I	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

### Special protective equipment for fire-fighters

:  Gigapack III packaging extract	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Wild-Type Lambda DNA c1857ind 1 Sam7	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
VCS257 E. coli Strain	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
XL1-Blue MRF' E. coli Strain	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
VCSM13 Interference-Resistant Helper Phage	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
ExAssist Interference-Resistant Helper Phage	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## Section 5. Fire-fighting measures


SOLR Bacterial Strain	pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
pBR322 Test Insert Digested With EcoR I and Sal I	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

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


<b>For non-emergency personnel</b>	: Gigapack III packaging extract	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	VCS257 E. coli Strain	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	XL1-Blue MRF' E. coli Strain	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	VCSM13 Interference-Resistant Helper Phage	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
	ExAssist Interference-Resistant Helper Phage	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

## Section 6. Accidental release measures

SOLR Bacterial Strain	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
pBR322 Test Insert Digested With EcoR I and Sal I	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
<b>For emergency responders :</b>  Gigapack III packaging extract	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Wild-Type Lambda DNA c1857ind 1 Sam7	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
VCS257 E. coli Strain	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
XL1-Blue MRF' E. coli Strain	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
VCSM13 Interference-Resistant Helper Phage	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
ExAssist Interference-Resistant Helper Phage	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
SOLR Bacterial Strain	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
pBR322 Test Insert Digested With EcoR I and Sal I	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".


## Section 6. Accidental release measures

### 6.2 Environmental precautions

:  Gigapack III packaging extract	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Wild-Type Lambda DNA c1857ind 1 Sam7	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
VCS257 E. coli Strain	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
XL1-Blue MRF' E. coli Strain	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
VCSM13 Interference-Resistant Helper Phage	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
ExAssist Interference-Resistant Helper Phage	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
SOLR Bacterial Strain	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
pBR322 Test Insert Digested With EcoR I and Sal I	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

#### Methods for cleaning up

:  Gigapack III packaging extract	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.
Wild-Type Lambda DNA c1857ind 1 Sam7	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.


## Section 6. Accidental release measures

VCS257 E. coli Strain	disposal contractor. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
XL1-Blue MRF' E. coli Strain	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.
VCSM13 Interference-Resistant Helper Phage	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.
ExAssist Interference-Resistant Helper Phage	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.
SOLR Bacterial Strain	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.
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	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.
pBR322 Test Insert Digested With EcoR I and Sal I	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.


## Section 7. Handling and storage

### 7.1 Precautions for safe handling

#### Protective measures

:  Gigapack III packaging extract	Put on appropriate personal protective equipment (see Section 8).
Wild-Type Lambda DNA c1857ind 1 Sam7	Put on appropriate personal protective equipment (see Section 8).
VCS257 E. coli Strain	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

## Section 7. Handling and storage

	<p>XL1-Blue MRF' E. coli Strain</p>	<p>Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.</p>
	<p>VCSM13 Interference-Resistant Helper Phage ExAssist Interference-Resistant Helper Phage SOLR Bacterial Strain</p>	<p>Put on appropriate personal protective equipment (see Section 8). Put on appropriate personal protective equipment (see Section 8). Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.</p>
	<p>Uni-ZAP XR Vector Predigested With EcoR I And Xho I pBR322 Test Insert Digested With EcoR I and Sal I</p>	<p>Put on appropriate personal protective equipment (see Section 8). Put on appropriate personal protective equipment (see Section 8).</p>
<p><b>Advice on general occupational hygiene</b></p>	<p>:  Gigapack III packaging extract</p>	<p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p>
	<p>Wild-Type Lambda DNA c1857ind 1 Sam7</p>	<p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p>
	<p>VCS257 E. coli Strain</p>	<p>Potentially biohazardous material. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p>
	<p>XL1-Blue MRF' E. coli Strain</p>	<p>Potentially biohazardous material. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p>
	<p>VCSM13 Interference-Resistant Helper Phage</p>	<p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment</p>

## Section 7. Handling and storage

ExAssist Interference-Resistant  
Helper Phage

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

SOLR Bacterial Strain

Potentially biohazardous material. 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.


Uni-ZAP XR Vector Predigested  
With EcoR I And Xho I

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.

pBR322 Test Insert Digested With  
EcoR I and Sal I

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

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

:  Gigapack III packaging extract

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

Wild-Type Lambda DNA c1857ind  
1 Sam7

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

VCS257 E. coli Strain

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



## Section 7. Handling and storage

XL1-Blue MRF' E. coli Strain	<p>to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p> <p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
VCSM13 Interference-Resistant Helper Phage	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
ExAssist Interference-Resistant Helper Phage	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
SOLR Bacterial Strain	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
pBR322 Test Insert Digested With EcoR I and Sal I	<p>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</p>







## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties





#### Appearance

<b>Physical state</b>	:	Gigapack III packaging extract	Liquid.
		Wild-Type Lambda DNA c1857ind	Liquid.
		1 Sam7	
		VCS257 E. coli Strain	Liquid.
		XL1-Blue MRF' E. coli Strain	Liquid.
		VCSM13 Interference-Resistant	Liquid.
		Helper Phage	
		ExAssist Interference-Resistant	Liquid.
		Helper Phage	
		SOLR Bacterial Strain	Liquid.
		Uni-ZAP XR Vector Predigested	Liquid.
		With EcoR I And Xho I	
		pBR322 Test Insert Digested With	Liquid.
	EcoR I and Sal I		
<b>Color</b>	:	Gigapack III packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind	Not available.
		1 Sam7	
		VCS257 E. coli Strain	Not available.
		XL1-Blue MRF' E. coli Strain	Not available.
		VCSM13 Interference-Resistant	Not available.
		Helper Phage	
		ExAssist Interference-Resistant	Not available.
		Helper Phage	
		SOLR Bacterial Strain	Not available.
		Uni-ZAP XR Vector Predigested	Not available.
		With EcoR I And Xho I	
		pBR322 Test Insert Digested With	Not available.
	EcoR I and Sal I		
<b>Odor</b>	:	Gigapack III packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind	Not available.
		1 Sam7	
		VCS257 E. coli Strain	Not available.
		XL1-Blue MRF' E. coli Strain	Not available.
		VCSM13 Interference-Resistant	Not available.
		Helper Phage	
		ExAssist Interference-Resistant	Not available.
		Helper Phage	
		SOLR Bacterial Strain	Not available.
		Uni-ZAP XR Vector Predigested	Not available.
		With EcoR I And Xho I	
		pBR322 Test Insert Digested With	Not available.
	EcoR I and Sal I		
<b>Odor threshold</b>	:	Gigapack III packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind	Not available.
		1 Sam7	
		VCS257 E. coli Strain	Not available.
		XL1-Blue MRF' E. coli Strain	Not available.
		VCSM13 Interference-Resistant	Not available.
		Helper Phage	
		ExAssist Interference-Resistant	Not available.
		Helper Phage	
		SOLR Bacterial Strain	Not available.
		Uni-ZAP XR Vector Predigested	Not available.
		With EcoR I And Xho I	
		pBR322 Test Insert Digested With	Not available.

## Section 9. Physical and chemical properties

	EcoR I and Sal I	
<b>pH</b>	: Gigapack III packaging extract	8
	Wild-Type Lambda DNA c1857ind 1 Sam7	7
	VCS257 E. coli Strain	7
	XL1-Blue MRF' E. coli Strain	7
	VCSM13 Interference-Resistant Helper Phage	7.5
	ExAssist Interference-Resistant Helper Phage	7.5
	SOLR Bacterial Strain	7
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	7.5
	pBR322 Test Insert Digested With EcoR I and Sal I	7.5
<b>Melting point</b>	: Gigapack III packaging extract	Not available.
	Wild-Type Lambda DNA c1857ind 1 Sam7	0°C (32°F)
	VCS257 E. coli Strain	Not available.
	XL1-Blue MRF' E. coli Strain	Not available.
	VCSM13 Interference-Resistant Helper Phage	0°C (32°F)
	ExAssist Interference-Resistant Helper Phage	0°C (32°F)
	SOLR Bacterial Strain	Not available.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	0°C (32°F)
	pBR322 Test Insert Digested With EcoR I and Sal I	0°C (32°F)
<b>Boiling point</b>	: Gigapack III packaging extract	Not available.
	Wild-Type Lambda DNA c1857ind 1 Sam7	100°C (212°F)
	VCS257 E. coli Strain	Not available.
	XL1-Blue MRF' E. coli Strain	Not available.
	VCSM13 Interference-Resistant Helper Phage	100°C (212°F)
	ExAssist Interference-Resistant Helper Phage	100°C (212°F)
	SOLR Bacterial Strain	Not available.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	100°C (212°F)
	pBR322 Test Insert Digested With EcoR I and Sal I	100°C (212°F)
<b>Flash point</b>	: Gigapack III packaging extract	Not available.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
	VCS257 E. coli Strain	Not available.
	XL1-Blue MRF' E. coli Strain	Not available.
	VCSM13 Interference-Resistant Helper Phage	Not available.
	ExAssist Interference-Resistant Helper Phage	Not available.
	SOLR Bacterial Strain	Not available.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Not available.
	pBR322 Test Insert Digested With EcoR I and Sal I	Not available.

## Section 9. Physical and chemical properties

<b>Evaporation rate</b>	:  Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain XL1-Blue MRF' E. coli Strain VCSM13 Interference-Resistant Helper Phage ExAssist Interference-Resistant Helper Phage SOLR Bacterial Strain Uni-ZAP XR Vector Predigested With EcoR I And Xho I pBR322 Test Insert Digested With EcoR I and Sal I	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
<b>Flammability (solid, gas)</b>	:  Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain XL1-Blue MRF' E. coli Strain VCSM13 Interference-Resistant Helper Phage ExAssist Interference-Resistant Helper Phage SOLR Bacterial Strain Uni-ZAP XR Vector Predigested With EcoR I And Xho I pBR322 Test Insert Digested With EcoR I and Sal I	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	:  Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain XL1-Blue MRF' E. coli Strain VCSM13 Interference-Resistant Helper Phage ExAssist Interference-Resistant Helper Phage SOLR Bacterial Strain Uni-ZAP XR Vector Predigested With EcoR I And Xho I pBR322 Test Insert Digested With EcoR I and Sal I	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
<b>Vapor pressure</b>	:  Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain XL1-Blue MRF' E. coli Strain VCSM13 Interference-Resistant Helper Phage ExAssist Interference-Resistant Helper Phage SOLR Bacterial Strain Uni-ZAP XR Vector Predigested With EcoR I And Xho I pBR322 Test Insert Digested With EcoR I and Sal I	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.

**Vapor density** :

## Section 9. Physical and chemical properties

	<ul style="list-style-type: none"> <li>☑ Gigapack III packaging extract Not available.</li> <li>Wild-Type Lambda DNA c1857ind Not available.</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain Not available.</li> <li>XL1-Blue MRF' E. coli Strain Not available.</li> <li>VCSM13 Interference-Resistant Not available.</li> <li>Helper Phage</li> <li>ExAssist Interference-Resistant Not available.</li> <li>Helper Phage</li> <li>SOLR Bacterial Strain Not available.</li> <li>Uni-ZAP XR Vector Predigested Not available.</li> <li>With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With Not available.</li> <li>EcoR I and Sal I</li> </ul>
<b>Relative density</b>	<ul style="list-style-type: none"> <li>☑ Gigapack III packaging extract Not available.</li> <li>Wild-Type Lambda DNA c1857ind Not available.</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain Not available.</li> <li>XL1-Blue MRF' E. coli Strain Not available.</li> <li>VCSM13 Interference-Resistant Not available.</li> <li>Helper Phage</li> <li>ExAssist Interference-Resistant Not available.</li> <li>Helper Phage</li> <li>SOLR Bacterial Strain Not available.</li> <li>Uni-ZAP XR Vector Predigested Not available.</li> <li>With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With Not available.</li> <li>EcoR I and Sal I</li> </ul>
<b>Solubility</b>	<ul style="list-style-type: none"> <li>☑ Gigapack III packaging extract Easily soluble in the following materials: cold water and hot water.</li> <li>Wild-Type Lambda DNA c1857ind Easily soluble in the following materials: cold water and hot water.</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain Easily soluble in the following materials: cold water and hot water.</li> <li>XL1-Blue MRF' E. coli Strain Soluble in the following materials: cold water and hot water.</li> <li>VCSM13 Interference-Resistant Helper Phage Easily soluble in the following materials: cold water and hot water.</li> <li>ExAssist Interference-Resistant Helper Phage Easily soluble in the following materials: cold water and hot water.</li> <li>SOLR Bacterial Strain Soluble in the following materials: cold water and hot water.</li> <li>Uni-ZAP XR Vector Predigested With EcoR I And Xho I Easily soluble in the following materials: cold water and hot water.</li> <li>pBR322 Test Insert Digested With EcoR I and Sal I Easily soluble in the following materials: cold water and hot water.</li> </ul>
<b>Partition coefficient: n-octanol/water</b>	<ul style="list-style-type: none"> <li>☑ Gigapack III packaging extract Not available.</li> <li>Wild-Type Lambda DNA c1857ind Not available.</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain Not available.</li> <li>XL1-Blue MRF' E. coli Strain Not available.</li> <li>VCSM13 Interference-Resistant Helper Phage Not available.</li> <li>ExAssist Interference-Resistant Helper Phage Not available.</li> <li>SOLR Bacterial Strain Not available.</li> <li>Uni-ZAP XR Vector Predigested With EcoR I And Xho I Not available.</li> </ul>

## Section 9. Physical and chemical properties

	pBR322 Test Insert Digested With EcoR I and Sal I	Not available.
<b>Auto-ignition temperature</b>	: Gigapack III packaging extract	Not available.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
	VCS257 E. coli Strain	Not available.
	XL1-Blue MRF' E. coli Strain	Not available.
	VCSM13 Interference-Resistant Helper Phage	Not available.
	ExAssist Interference-Resistant Helper Phage	Not available.
	SOLR Bacterial Strain	Not available.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Not available.
	pBR322 Test Insert Digested With EcoR I and Sal I	Not available.
<b>Decomposition temperature</b>	: Gigapack III packaging extract	Not available.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
	VCS257 E. coli Strain	Not available.
	XL1-Blue MRF' E. coli Strain	Not available.
	VCSM13 Interference-Resistant Helper Phage	Not available.
	ExAssist Interference-Resistant Helper Phage	Not available.
	SOLR Bacterial Strain	Not available.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Not available.
	pBR322 Test Insert Digested With EcoR I and Sal I	Not available.
<b>Viscosity</b>	: Gigapack III packaging extract	Not available.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
	VCS257 E. coli Strain	Not available.
	XL1-Blue MRF' E. coli Strain	Not available.
	VCSM13 Interference-Resistant Helper Phage	Not available.
	ExAssist Interference-Resistant Helper Phage	Not available.
	SOLR Bacterial Strain	Not available.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Not available.
	pBR322 Test Insert Digested With EcoR I and Sal I	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: Gigapack III packaging extract	No specific test data related to reactivity available for this product or its ingredients.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific test data related to reactivity available for this product or its ingredients.
	VCS257 E. coli Strain	No specific test data related to reactivity available for this product or its ingredients.
	XL1-Blue MRF' E. coli Strain	No specific test data related to reactivity available for this product or its ingredients.
	VCSM13 Interference-Resistant Helper Phage	No specific test data related to reactivity available for this product or its ingredients.
	ExAssist Interference-Resistant	No specific test data related to reactivity available



## Section 10. Stability and reactivity

Helper Phage	for this product or its ingredients.
SOLR Bacterial Strain	No specific test data related to reactivity available for this product or its ingredients.
Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No specific test data related to reactivity available for this product or its ingredients.
pBR322 Test Insert Digested With EcoR I and Sal I	No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability

<ul style="list-style-type: none"> <li>• Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind 1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant Helper Phage</li> <li>ExAssist Interference-Resistant Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>The product is stable.</li> <li>The product is stable.</li> <li>The product is stable.</li> <li>The product is stable.</li> <li>The product is stable.</li> <li>The product is stable.</li> <li>The product is stable.</li> <li>The product is stable.</li> <li>The product is stable.</li> </ul>
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### 10.3 Possibility of hazardous reactions

<ul style="list-style-type: none"> <li>• Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind 1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant Helper Phage</li> <li>ExAssist Interference-Resistant Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> <li>Under normal conditions of storage and use, hazardous reactions will not occur.</li> </ul>
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### 10.4 Conditions to avoid

<ul style="list-style-type: none"> <li>• Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind 1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant Helper Phage</li> <li>ExAssist Interference-Resistant Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> <li>No specific data.</li> </ul>
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## Section 10. Stability and reactivity

<b>10.5 Incompatible materials</b>	:  Gigapack III packaging extract	May react or be incompatible with oxidizing materials.
	Wild-Type Lambda DNA c1857ind 1 Sam7	May react or be incompatible with oxidizing materials.
	VCS257 E. coli Strain	May react or be incompatible with oxidizing materials.
	XL1-Blue MRF' E. coli Strain	May react or be incompatible with oxidizing materials.
	VCSM13 Interference-Resistant Helper Phage	May react or be incompatible with oxidizing materials.
	ExAssist Interference-Resistant Helper Phage	May react or be incompatible with oxidizing materials.
	SOLR Bacterial Strain	May react or be incompatible with oxidizing materials.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	May react or be incompatible with oxidizing materials.
	pBR322 Test Insert Digested With EcoR I and Sal I	May react or be incompatible with oxidizing materials.
<b>10.6 Hazardous decomposition products</b>	:  Gigapack III packaging extract	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	VCS257 E. coli Strain	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	XL1-Blue MRF' E. coli Strain	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	VCSM13 Interference-Resistant Helper Phage	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	ExAssist Interference-Resistant Helper Phage	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SOLR Bacterial Strain	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	pBR322 Test Insert Digested With EcoR I and Sal I	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

## Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
<b>✓CS257 E. coli Strain</b>				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
<b>XL1-Blue MRF' E. coli Strain</b>				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
<b>SOLR Bacterial Strain</b>				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>✓CS257 E. coli Strain</b>					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
<b>XL1-Blue MRF' E. coli Strain</b>					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
<b>SOLR Bacterial Strain</b>					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

## Section 11. Toxicological information

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

<ul style="list-style-type: none"> <li>• Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant Helper Phage</li> <li>ExAssist Interference-Resistant Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>Not available.</li> <li>Not available.</li> <li>Routes of entry anticipated: Oral, Dermal, Inhalation.</li> <li>Routes of entry anticipated: Oral, Dermal, Inhalation.</li> <li>Not available.</li> <li>Not available.</li> <li>Routes of entry anticipated: Oral, Dermal, Inhalation.</li> <li>Not available.</li> <li>Not available.</li> <li>Routes of entry anticipated: Oral, Dermal, Inhalation.</li> <li>Not available.</li> <li>Not available.</li> </ul>
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### Potential acute health effects



#### Eye contact

<ul style="list-style-type: none"> <li>• Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant Helper Phage</li> <li>ExAssist Interference-Resistant Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>Causes serious eye irritation.</li> <li>Causes serious eye irritation.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>Causes serious eye irritation.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
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#### Inhalation

<ul style="list-style-type: none"> <li>• Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant Helper Phage</li> <li>ExAssist Interference-Resistant</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
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## Section 11. Toxicological information

	Helper Phage	
	SOLR Bacterial Strain	No known significant effects or critical hazards.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No known significant effects or critical hazards.
	pBR322 Test Insert Digested With EcoR I and Sal I	No known significant effects or critical hazards.
<b>Skin contact</b>	:  Gigapack III packaging extract	No known significant effects or critical hazards.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No known significant effects or critical hazards.
	VCS257 E. coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRF' E. coli Strain	No known significant effects or critical hazards.
	VCSM13 Interference-Resistant Helper Phage	No known significant effects or critical hazards.
	ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards.
	SOLR Bacterial Strain	No known significant effects or critical hazards.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No known significant effects or critical hazards.
	pBR322 Test Insert Digested With EcoR I and Sal I	No known significant effects or critical hazards.
<b>Ingestion</b>	:  Gigapack III packaging extract	No known significant effects or critical hazards.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No known significant effects or critical hazards.
	VCS257 E. coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRF' E. coli Strain	No known significant effects or critical hazards.
	VCSM13 Interference-Resistant Helper Phage	No known significant effects or critical hazards.
	ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards.
	SOLR Bacterial Strain	No known significant effects or critical hazards.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No known significant effects or critical hazards.
	pBR322 Test Insert Digested With EcoR I and Sal I	No known significant effects or critical hazards.

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

<b>Eye contact</b>	:  Gigapack III packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	Adverse symptoms may include the following: pain or irritation watering redness
	XL1-Blue MRF' E. coli Strain	Adverse symptoms may include the following: pain or irritation watering redness
	VCSM13 Interference-Resistant Helper Phage	No specific data.
	ExAssist Interference-Resistant Helper Phage	No specific data.
	SOLR Bacterial Strain	Adverse symptoms may include the following: pain or irritation watering redness
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No specific data.
	pBR322 Test Insert Digested With	No specific data.

## Section 11. Toxicological information

	EcoR I and Sal I	
<b>Inhalation</b>	:  Gigapack III packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	No specific data.
	XL1-Blue MRF' E. coli Strain	No specific data.
	VCSM13 Interference-Resistant Helper Phage	No specific data.
	ExAssist Interference-Resistant Helper Phage	No specific data.
	SOLR Bacterial Strain	No specific data.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No specific data.
	pBR322 Test Insert Digested With EcoR I and Sal I	No specific data.
<b>Skin contact</b>	:  Gigapack III packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	No specific data.
	XL1-Blue MRF' E. coli Strain	No specific data.
	VCSM13 Interference-Resistant Helper Phage	No specific data.
	ExAssist Interference-Resistant Helper Phage	No specific data.
	SOLR Bacterial Strain	No specific data.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No specific data.
	pBR322 Test Insert Digested With EcoR I and Sal I	No specific data.
<b>Ingestion</b>	:  Gigapack III packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	No specific data.
	XL1-Blue MRF' E. coli Strain	No specific data.
	VCSM13 Interference-Resistant Helper Phage	No specific data.
	ExAssist Interference-Resistant Helper Phage	No specific data.
	SOLR Bacterial Strain	No specific data.
	Uni-ZAP XR Vector Predigested With EcoR I And Xho I	No specific data.
	pBR322 Test Insert Digested With EcoR I and Sal I	No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

## Section 11. Toxicological information

<b>General</b>	<ul style="list-style-type: none"> <li>• Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant</li> <li>Helper Phage</li> <li>ExAssist Interference-Resistant</li> <li>Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested</li> <li>With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With</li> <li>EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
<b>Carcinogenicity</b>	<ul style="list-style-type: none"> <li>• Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant</li> <li>Helper Phage</li> <li>ExAssist Interference-Resistant</li> <li>Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested</li> <li>With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With</li> <li>EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
<b>Mutagenicity</b>	<ul style="list-style-type: none"> <li>• Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant</li> <li>Helper Phage</li> <li>ExAssist Interference-Resistant</li> <li>Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested</li> <li>With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With</li> <li>EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
<b>Teratogenicity</b>	<ul style="list-style-type: none"> <li>• Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant</li> <li>Helper Phage</li> <li>ExAssist Interference-Resistant</li> <li>Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested</li> <li>With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With</li> <li>EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>



## Section 11. Toxicological information

<b>Developmental effects</b>	<ul style="list-style-type: none"> <li>: Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant Helper Phage</li> <li>ExAssist Interference-Resistant Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>
<b>Fertility effects</b>	<ul style="list-style-type: none"> <li>: Gigapack III packaging extract</li> <li>Wild-Type Lambda DNA c1857ind</li> <li>1 Sam7</li> <li>VCS257 E. coli Strain</li> <li>XL1-Blue MRF' E. coli Strain</li> <li>VCSM13 Interference-Resistant Helper Phage</li> <li>ExAssist Interference-Resistant Helper Phage</li> <li>SOLR Bacterial Strain</li> <li>Uni-ZAP XR Vector Predigested With EcoR I And Xho I</li> <li>pBR322 Test Insert Digested With EcoR I and Sal I</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
VCS257 E. coli Strain Oral	300000 mg/kg
XL1-Blue MRF' E. coli Strain Oral	300000 mg/kg
SOLR Bacterial Strain Oral	300000 mg/kg

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
VCS257 E. coli Strain	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Glycerol	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
Sodium chloride	Acute EC50 28.85 mg/dm3 Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1661 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

## Section 12. Ecological information

<b>XL1-Blue MRF' E. coli Strain</b> Glycerol Sodium chloride	Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water	Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	96 hours 3 weeks
	Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 21 days 8 weeks
	Acute LC50 54000 mg/l Fresh water Acute EC50 2430000 µg/l Fresh water Acute EC50 28.85 mg/dm <sup>3</sup> Fresh water	Fish - Oncorhynchus mykiss Algae - Navicula seminulum Algae - Pseudokirchneriella subcapitata	96 hours 96 hours 72 hours
	Acute EC50 519.6 mg/l Fresh water Acute IC50 6.87 g/L Fresh water Acute LC50 1661 mg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water	Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 96 hours 48 hours 96 hours 3 weeks
<b>SOLR Bacterial Strain</b> Glycerol Sodium chloride	Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 21 days 8 weeks
	Acute LC50 54000 mg/l Fresh water Acute EC50 2430000 µg/l Fresh water Acute EC50 28.85 mg/dm <sup>3</sup> Fresh water	Fish - Oncorhynchus mykiss Algae - Navicula seminulum Algae - Pseudokirchneriella subcapitata	96 hours 96 hours 72 hours
	Acute EC50 519.6 mg/l Fresh water Acute IC50 6.87 g/L Fresh water Acute LC50 1661 mg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water	Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 96 hours 48 hours 96 hours 3 weeks
	Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 21 days 8 weeks

### 12.2 Persistence and degradability

Not available.

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>VCS257 E. coli Strain</b> Glycerol	-1.76	-	low
<b>XL1-Blue MRF' E. coli Strain</b> Glycerol	-1.76	-	low
<b>SOLR Bacterial Strain</b> Glycerol	-1.76	-	low

### 12.4 Mobility in soil

## Section 12. Ecological information

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

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

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.**

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

### Regulatory information

**DOT / IMDG / IATA** : Not regulated.

## Section 15. Regulatory information

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

**U.S. Federal regulations** :  **United States inventory (TSCA 8b)**: All components are listed or exempted.  
**Clean Water Act (CWA) 311**: Edetic acid

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

**SARA 302/304**

## Section 15. Regulatory information

### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Immediate (acute) health hazard

### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
<b>VCS257 E. coli Strain</b>						
Glycerol	≥10 - ≤25	No.	No.	No.	Yes.	No.
Sodium chloride	≤3	No.	No.	No.	Yes.	No.
<b>XL1-Blue MRF' E. coli Strain</b>						
Glycerol	≥10 - ≤25	No.	No.	No.	Yes.	No.
Sodium chloride	≤3	No.	No.	No.	Yes.	No.
<b>SOLR Bacterial Strain</b>						
Glycerol	≥10 - ≤25	No.	No.	No.	Yes.	No.
Sodium chloride	≤3	No.	No.	No.	Yes.	No.

### State regulations

**Massachusetts** : The following components are listed: GLYCERINE MIST

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL

**Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
<b>XL1-Blue MRF' E. coli Strain</b>				
Tetracycline	No.	Yes.	No.	No.

**Canada inventory** : Not determined.

### International regulations

**International lists** :

- Australia inventory (AICS):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory (ENCS):** Not determined.
- Japan inventory (ISHL):** Not determined.
- Korea inventory:** Not determined.
- Malaysia Inventory (EHS Register):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- Taiwan Chemical Substances Inventory (TCSI):** All components are listed or exempted.
- Turkey inventory:** Not determined.

**Chemical Weapons Convention List Schedule I Chemicals** : Not listed

## Section 15. Regulatory information

**Chemical Weapons Convention List Schedule II Chemicals** : Not listed

**Chemical Weapons Convention List Schedule III Chemicals** : Not listed

## Section 16. Other information

### History

**Date of issue** : 02/29/2016

**Date of previous issue** : 04/24/2014.

**Version** : 4

✔ 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.