

# SAFETY DATA SHEET



Lambda FIX II Xho I Partial Fill-In - Gigapack III XL Cloning Kit, Part Number 248712

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

### 1.1 Product identifier

<b>Product name</b>	: Lambda FIX II Xho I Partial Fill-In - Gigapack III XL Cloning Kit, Part Number 248712		
<b>Part No. (Kit)</b>	: 248712		
<b>Part No.</b>	: Gigapack III XL - 11	200207-41	
	packaging extract		
	Wild-Type Lambda DNA	246203-51	
	c1857ind 1 Sam7		
	VCS257 E. coli Strain	200256-51	
	Lambda FixII Vector	248211-51	
	Predigested With Xho I		
	XL1-Blue MRA E.coli	200302-81	
	Strain		
	XL1-Blue MRA (p2) E.	200303-81	
	coli Strain		
	pMF/BamH I Test Insert	210200-55	

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

Identified uses	
Analytical reagent.	
Gigapack III XL - 11 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
Lambda FixII Vector Predigested With Xho I	0.01 ml
XL1-Blue MRA E.coli Strain	0.5 ml
XL1-Blue MRA (p2) E.coli Strain	0.5 ml
pMF/BamH I Test Insert	0.01 ml

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

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

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

### 1.4 Emergency telephone number

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

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

<b>Product definition</b>	: Gigapack III XL - 11	Mixture
	packaging extract	
	Wild-Type Lambda DNA	Mixture
	c1857ind 1 Sam7	
	VCS257 E. coli Strain	Mixture
	Lambda FixII Vector	Mixture
	Predigested With Xho I	
	XL1-Blue MRA E.coli	Mixture

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

## SECTION 2: Hazards identification

Strain  
 XL1-Blue MRA (p2) E. coli Strain Mixture  
 pMF/BamH I Test Insert Mixture

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

Not classified.

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

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

### 2.2 Label elements

<b>Signal word</b>	:	Gigapack III XL - 11 packaging extract	No signal word.
		Wild-Type Lambda DNA c1857ind 1 Sam7	No signal word.
		VCS257 E. coli Strain	No signal word.
		Lambda FixII Vector	No signal word.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	No signal word.
		XL1-Blue MRA (p2) E. coli Strain	No signal word.
		pMF/BamH I Test Insert	No signal word.
<b>Hazard statements</b>	:	Gigapack III XL - 11 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.
		Lambda FixII Vector	No known significant effects or critical hazards.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
		XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
		pMF/BamH I Test Insert	No known significant effects or critical hazards.
<b>Precautionary statements</b>			
<b>Prevention</b>	:	Gigapack III XL - 11 packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.
		VCS257 E. coli Strain	Not applicable.
		Lambda FixII Vector	Not applicable.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not applicable.
		XL1-Blue MRA (p2) E. coli Strain	Not applicable.
		pMF/BamH I Test Insert	Not applicable.
<b>Response</b>	:	Gigapack III XL - 11 packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.
		VCS257 E. coli Strain	Not applicable.
		Lambda FixII Vector	Not applicable.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not applicable.
		XL1-Blue MRA (p2) E. coli Strain	Not applicable.
		pMF/BamH I Test Insert	Not applicable.

## SECTION 2: Hazards identification

<b>Storage</b>	:	Gigapack III XL - 11 packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.
		VCS257 E. coli Strain	Not applicable.
		Lambda FixII Vector	Not applicable.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not applicable.
		XL1-Blue MRA (p2) E. coli Strain	Not applicable.
		pMF/BamH I Test Insert	Not applicable.
<b>Disposal</b>	:	Gigapack III XL - 11 packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.
		VCS257 E. coli Strain	Not applicable.
		Lambda FixII Vector	Not applicable.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not applicable.
		XL1-Blue MRA (p2) E. coli Strain	Not applicable.
		pMF/BamH I Test Insert	Not applicable.
<b>Hazardous ingredients</b>	:	No hazardous ingredient	
<b>Supplemental label elements</b>	:	Gigapack III XL - 11 packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.
		VCS257 E. coli Strain	Safety data sheet available on request.
		Lambda FixII Vector	Not applicable.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Safety data sheet available on request.
		XL1-Blue MRA (p2) E. coli Strain	Safety data sheet available on request.
		pMF/BamH I Test Insert	Not applicable.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	:	Gigapack III XL - 11 packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.
		VCS257 E. coli Strain	Not applicable.
		Lambda FixII Vector	Not applicable.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not applicable.
		XL1-Blue MRA (p2) E. coli Strain	Not applicable.
		pMF/BamH I Test Insert	Not applicable.
<b><u>Special packaging requirements</u></b>			
<b>Tactile warning of danger</b>	:	Gigapack III XL - 11 packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.
		VCS257 E. coli Strain	Not applicable.
		Lambda FixII Vector	Not applicable.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not applicable.
		XL1-Blue MRA (p2) E. coli Strain	Not applicable.
		pMF/BamH I Test Insert	Not applicable.

## SECTION 2: Hazards identification

### 2.3 Other hazards

<b>Other hazards which do not result in classification</b>	:	Gigapack III XL - 11 packaging extract	None known.
		Wild-Type Lambda DNA c1857ind 1 Sam7	None known.
		VCS257 E. coli Strain	None known.
		Lambda FixII Vector	None known.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	None known.
		XL1-Blue MRA (p2) E. coli Strain	None known.
		pMF/BamH I Test Insert	None known.

## SECTION 3: Composition/information on ingredients

<b>3.2 Mixtures</b>	:	Gigapack III XL - 11 packaging extract	Mixture
		Wild-Type Lambda DNA c1857ind 1 Sam7	Mixture
		VCS257 E. coli Strain	Mixture
		Lambda FixII Vector Predigested With Xho I	Mixture
		XL1-Blue MRA E.coli Strain	Mixture
		XL1-Blue MRA (p2) E.coli Strain	Mixture
		pMF/BamH I Test Insert	Mixture

Product/ingredient name	Identifiers	%	Classification	Type
<b>Gigapack III XL - 11 packaging extract</b> Sucrose	EC: 200-334-9 CAS: 57-50-1	≤10	Not classified.	[2]
<b>VCS257 E. coli Strain</b> Glycerol	EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤3	Eye Irrit. 2, H319	[1]
<b>XL1-Blue MRA E.coli Strain</b> Glycerol	EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤3	Eye Irrit. 2, H319	[1]
<b>XL1-Blue MRA (p2) E.coli Strain</b> Glycerol	EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤3	Eye Irrit. 2, H319	[1]
			<b>See Section 16 for the full text of the H statements declared above.</b>	

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

Type

### SECTION 3: Composition/information on ingredients

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>Eye contact</b>	: Gigapack III XL - 11 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. Get medical attention if irritation occurs.
	Lambda FixII Vector Predigested With 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.
	XL1-Blue MRA E.coli Strain	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.
	XL1-Blue MRA (p2) E. coli Strain	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.
	pMF/BamH I Test Insert	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Inhalation</b>	: Gigapack III XL - 11 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. Get medical attention if symptoms occur.
	Lambda FixII Vector Predigested With Xho I	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	XL1-Blue MRA E.coli Strain	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	XL1-Blue MRA (p2) E. coli Strain	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pMF/BamH I Test Insert	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
<b>Skin contact</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector Predigested With Xho I	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	XL1-Blue MRA E.coli	Flush contaminated skin with plenty of water. Remove

**SECTION 4: First aid measures**

	Strain	contaminated clothing and shoes. Get medical attention if symptoms occur.
	XL1-Blue MRA (p2) E. coli Strain	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pMF/BamH I Test Insert	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: Gigapack III XL - 11 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 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.
	Lambda FixII Vector Predigested With Xho I	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.
	XL1-Blue MRA E.coli Strain	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.
	XL1-Blue MRA (p2) E. coli Strain	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.
	pMF/BamH I Test Insert	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.
<b>Protection of first-aiders</b>	: Gigapack III XL - 11 packaging extract	No action shall be taken involving any personal risk or without suitable training.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No action shall be taken involving any personal risk or without suitable training.
	VCS257 E. coli Strain	No action shall be taken involving any personal risk or without suitable training.
	Lambda FixII Vector Predigested With Xho I	No action shall be taken involving any personal risk or without suitable training.
	XL1-Blue MRA E.coli Strain	No action shall be taken involving any personal risk or without suitable training.
	XL1-Blue MRA (p2) E. coli Strain	No action shall be taken involving any personal risk or without suitable training.
	pMF/BamH I Test Insert	No action shall be taken involving any personal risk or without suitable training.

**SECTION 4: First aid measures****4.2 Most important symptoms and effects, both acute and delayed****Potential acute health effects**

<b>Eye contact</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
	XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
<b>Inhalation</b>	XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
	pMF/BamH I Test Insert	No known significant effects or critical hazards.
	: Gigapack III XL - 11 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.
<b>Skin contact</b>	Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
	XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
	pMF/BamH I Test Insert	No known significant effects or critical hazards.
	: Gigapack III XL - 11 packaging extract	No known significant effects or critical hazards.
<b>Ingestion</b>	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.
	Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
	XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
	pMF/BamH I Test Insert	No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

<b>Eye contact</b>	: Gigapack III XL - 11 packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	No specific data.
	Lambda FixII Vector Predigested With Xho I	No specific data.
	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E. coli Strain	No specific data.
	pMF/BamH I Test Insert	No specific data.

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	coli Strain	
	pMF/BamH I Test Insert	No specific data.
<b>Inhalation</b>	: Gigapack III XL - 11 packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	No specific data.
	Lambda FixII Vector Predigested With Xho I	No specific data.
	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E. coli Strain	No specific data.
	pMF/BamH I Test Insert	No specific data.
<b>Skin contact</b>	: Gigapack III XL - 11 packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	No specific data.
	Lambda FixII Vector Predigested With Xho I	No specific data.
	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E. coli Strain	No specific data.
	pMF/BamH I Test Insert	No specific data.
<b>Ingestion</b>	: Gigapack III XL - 11 packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	No specific data.
	Lambda FixII Vector Predigested With Xho I	No specific data.
	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E. coli Strain	No specific data.
	pMF/BamH I Test Insert	No specific data.

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

<b>Notes to physician</b>	: Gigapack III XL - 11 packaging extract	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	VCS257 E. coli Strain	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Lambda FixII Vector Predigested With Xho I	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	XL1-Blue MRA E.coli Strain	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	XL1-Blue MRA (p2) E. coli Strain	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	pMF/BamH I Test Insert	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: Gigapack III XL - 11 packaging extract	No specific treatment.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific treatment.
	VCS257 E. coli Strain	No specific treatment.
	Lambda FixII Vector Predigested With Xho I	No specific treatment.
	XL1-Blue MRA E.coli Strain	No specific treatment.



## SECTION 4: First aid measures

XL1-Blue MRA (p2) E. coli Strain	No specific treatment.
pMF/BamH I Test Insert	No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector Predigested With Xho I	Use an extinguishing agent suitable for the surrounding fire.
	XL1-Blue MRA E.coli Strain	Use an extinguishing agent suitable for the surrounding fire.
	XL1-Blue MRA (p2) E. coli Strain	Use an extinguishing agent suitable for the surrounding fire.
	pMF/BamH I Test Insert	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: Gigapack III XL - 11 packaging extract	None known.
	Wild-Type Lambda DNA c1857ind 1 Sam7	None known.
	VCS257 E. coli Strain	None known.
	Lambda FixII Vector Predigested With Xho I	None known.
	XL1-Blue MRA E.coli Strain	None known.
	XL1-Blue MRA (p2) E. coli Strain	None known.
	pMF/BamH I Test Insert	None known.

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

<b>Hazards from the substance or mixture</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector Predigested With Xho I	In a fire or if heated, a pressure increase will occur and the container may burst.
	XL1-Blue MRA E.coli Strain	In a fire or if heated, a pressure increase will occur and the container may burst.
	XL1-Blue MRA (p2) E. coli Strain	In a fire or if heated, a pressure increase will occur and the container may burst.
	pMF/BamH I Test Insert	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous combustion products</b>	: Gigapack III XL - 11 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
	Lambda FixII Vector Predigested With Xho I	No specific data.
	XL1-Blue MRA E.coli Strain	Decomposition products may include the following materials: carbon dioxide

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	carbon monoxide halogenated compounds metal oxide/oxides
XL1-Blue MRA (p2) E. coli Strain	Decomposition products may include the following materials:
	carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
pMF/BamH I Test Insert	No specific data.

**5.3 Advice for firefighters**

**Special precautions for fire-fighters**

: Gigapack III XL - 11 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.
Lambda FixII Vector Predigested With 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.
XL1-Blue MRA 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 MRA (p2) 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.
pMF/BamH I Test Insert	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 XL - 11 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
Lambda FixII Vector Predigested With 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
XL1-Blue MRA 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 5: Firefighting measures

XL1-Blue MRA (p2) 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
pMF/BamH I Test Insert	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

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

<b>For non-emergency personnel</b>	: Gigapack III XL - 11 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 spilt 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 spilt 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 spilt material. Put on appropriate personal protective equipment.
	Lambda FixII Vector Predigested With 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 spilt material. Put on appropriate personal protective equipment.
	XL1-Blue MRA 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 spilt material. Put on appropriate personal protective equipment.
	XL1-Blue MRA (p2) 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 spilt material. Put on appropriate personal protective equipment.
	pMF/BamH I Test Insert	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	<b>For emergency responders</b>	: Gigapack III XL - 11 packaging extract
Wild-Type Lambda DNA c1857ind 1 Sam7		If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
VCS257 E. coli Strain		If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Lambda FixII Vector		If specialised clothing is required to deal with the spillage,

**SECTION 6: Accidental release measures**

Predigested With Xho I	take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
XL1-Blue MRA E.coli Strain	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
XL1-Blue MRA (p2) E. coli Strain	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
pMF/BamH I Test Insert	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions**

: Gigapack III XL - 11 packaging extract	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Wild-Type Lambda DNA c1857ind 1 Sam7	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
VCS257 E. coli Strain	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Lambda FixII Vector Predigested With Xho I	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
XL1-Blue MRA E.coli Strain	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
XL1-Blue MRA (p2) E. coli Strain	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
pMF/BamH I Test Insert	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

**Methods for cleaning up**

: Gigapack III XL - 11 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.
VCS257 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.
Lambda FixII Vector Predigested With Xho I	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively,

## SECTION 6: Accidental release measures

XL1-Blue MRA E.coli Strain	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. 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 MRA (p2) 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.
pMF/BamH I Test Insert	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain  Lambda FixII Vector Predigested With Xho I XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E. coli Strain pMF/BamH I Test Insert	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). 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). Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b>	: Gigapack III XL - 11 packaging extract  Wild-Type Lambda DNA c1857ind 1 Sam7  VCS257 E. coli Strain  Lambda FixII Vector Predigested With 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. 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. 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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also

**SECTION 7: Handling and storage**

XL1-Blue MRA E.coli Strain	Section 8 for additional information on hygiene measures. 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.
XL1-Blue MRA (p2) E. coli 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.
pMF/BamH I Test Insert	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 XL - 11 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 unlabelled 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 unlabelled 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 to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
Lambda FixII Vector Predigested With Xho I	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
XL1-Blue MRA 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 to

## SECTION 7: Handling and storage

XL1-Blue MRA (p2) E. coli Strain	prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
pMF/BamH I Test Insert	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

<b>Recommendations</b>	: Gigapack III XL - 11 packaging extract Industrial applications, Professional applications. Wild-Type Lambda DNA c1857ind 1 Sam7 Industrial applications, Professional applications. VCS257 E. coli Strain Industrial applications, Professional applications. Lambda FixII Vector Industrial applications, Professional applications. Predigested With Xho I XL1-Blue MRA E.coli Strain Industrial applications, Professional applications. XL1-Blue MRA (p2) E. coli Strain Industrial applications, Professional applications. pMF/BamH I Test Insert Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: Gigapack III XL - 11 packaging extract Not applicable. Wild-Type Lambda DNA c1857ind 1 Sam7 Not applicable. VCS257 E. coli Strain Not applicable. Lambda FixII Vector Not applicable. Predigested With Xho I XL1-Blue MRA E.coli Strain Not applicable. XL1-Blue MRA (p2) E. coli Strain Not applicable. pMF/BamH I Test Insert Not applicable.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
Gigapack III XL - 11 packaging extract Sucrose	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> STEL: 20 mg/m <sup>3</sup> 15 minutes. TWA: 10 mg/m <sup>3</sup> 8 hours.
VCS257 E. coli Strain Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist

## SECTION 8: Exposure controls/personal protection

**XL1-Blue MRA E.coli Strain**

Glycerol

**EH40/2005 WELs (United Kingdom (UK), 12/2011).**

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Mist

**XL1-Blue MRA (p2) E.coli Strain**

Glycerol

**EH40/2005 WELs (United Kingdom (UK), 12/2011).**

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Mist

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

**DNELs/DMELs**

No DNELs/DMELs available.

**PNECs**

No PNECs available

### 8.2 Exposure controls

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

**Individual protection measures**

**Hygiene measures** : Handle as biohazard material (Biosafety level 1). Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.



**SECTION 8: Exposure controls/personal protection**

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

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****Appearance**

<b>Physical state</b>	:	Gigapack III XL - 11 packaging extract	Liquid.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Liquid.
		VCS257 E. coli Strain	Liquid.
		Lambda FixII Vector	Liquid.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Liquid.
		XL1-Blue MRA (p2) E. coli Strain	Liquid.
		pMF/BamH I Test Insert	Liquid.
<b>Colour</b>	:	Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
		VCS257 E. coli Strain	Not available.
		Lambda FixII Vector	Not available.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not available.
		XL1-Blue MRA (p2) E. coli Strain	Not available.
		pMF/BamH I Test Insert	Not available.
<b>Odour</b>	:	Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
		VCS257 E. coli Strain	Not available.
		Lambda FixII Vector	Not available.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not available.
		XL1-Blue MRA (p2) E. coli Strain	Not available.
		pMF/BamH I Test Insert	Not available.
<b>Odour threshold</b>	:	Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
		VCS257 E. coli Strain	Not available.
		Lambda FixII Vector	Not available.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not available.
		XL1-Blue MRA (p2) E. coli Strain	Not available.
		pMF/BamH I Test Insert	Not available.

**SECTION 9: Physical and chemical properties**

<b>pH</b>	: Gigapack III XL - 11 packaging extract	8	
	Wild-Type Lambda DNA c1857ind 1 Sam7	7	
	VCS257 E. coli Strain	7	
	Lambda FixII Vector	7.5	
	Predigested With Xho I		
	XL1-Blue MRA E.coli Strain	7	
	XL1-Blue MRA (p2) E. coli Strain	7	
	pMF/BamH I Test Insert	8	
	<b>Melting point/freezing point</b>	: Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	0°C
VCS257 E. coli Strain		Not available.	
Lambda FixII Vector		0°C	
Predigested With Xho I			
XL1-Blue MRA E.coli Strain		Not available.	
XL1-Blue MRA (p2) E. coli Strain		Not available.	
pMF/BamH I Test Insert		0°C	
<b>Initial boiling point and boiling range</b>		: Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	100°C
	VCS257 E. coli Strain	Not available.	
	Lambda FixII Vector	100°C	
	Predigested With Xho I		
	XL1-Blue MRA E.coli Strain	Not available.	
	XL1-Blue MRA (p2) E. coli Strain	Not available.	
	pMF/BamH I Test Insert	100°C	
	<b>Flash point</b>	: Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
VCS257 E. coli Strain		Not available.	
Lambda FixII Vector		Not available.	
Predigested With Xho I			
XL1-Blue MRA E.coli Strain		Not available.	
XL1-Blue MRA (p2) E. coli Strain		Not available.	
pMF/BamH I Test Insert		Not available.	
<b>Evaporation rate</b>		: Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
	VCS257 E. coli Strain	Not available.	
	Lambda FixII Vector	Not available.	
	Predigested With Xho I		
	XL1-Blue MRA E.coli Strain	Not available.	
	XL1-Blue MRA (p2) E. coli Strain	Not available.	
	pMF/BamH I Test Insert	Not available.	

**SECTION 9: Physical and chemical properties**

<b>Flammability (solid, gas)</b>	:	Gigapack III XL - 11 packaging extract	Not applicable.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.
		VCS257 E. coli Strain	Not applicable.
		Lambda FixII Vector	Not applicable.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not applicable.
		XL1-Blue MRA (p2) E. coli Strain	Not applicable.
		pMF/BamH I Test Insert	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	:	Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
		VCS257 E. coli Strain	Not available.
		Lambda FixII Vector	Not available.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not available.
		XL1-Blue MRA (p2) E. coli Strain	Not available.
		pMF/BamH I Test Insert	Not available.
<b>Vapour pressure</b>	:	Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
		VCS257 E. coli Strain	Not available.
		Lambda FixII Vector	Not available.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not available.
		XL1-Blue MRA (p2) E. coli Strain	Not available.
		pMF/BamH I Test Insert	Not available.
<b>Vapour density</b>	:	Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
		VCS257 E. coli Strain	Not available.
		Lambda FixII Vector	Not available.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not available.
		XL1-Blue MRA (p2) E. coli Strain	Not available.
		pMF/BamH I Test Insert	Not available.
<b>Relative density</b>	:	Gigapack III XL - 11 packaging extract	Not available.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
		VCS257 E. coli Strain	Not available.
		Lambda FixII Vector	Not available.
		Predigested With Xho I	
		XL1-Blue MRA E.coli Strain	Not available.
		XL1-Blue MRA (p2) E. coli Strain	Not available.
		pMF/BamH I Test Insert	Not available.

**SECTION 9: Physical and chemical properties**

<b>Solubility(ies)</b>	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain  Lambda FixII Vector Predigested With Xho I XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E. coli Strain pMF/BamH I Test Insert	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain Lambda FixII Vector Predigested With Xho I XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E. coli Strain pMF/BamH I Test Insert	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
<b>Auto-ignition temperature</b>	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain Lambda FixII Vector Predigested With Xho I XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E. coli Strain pMF/BamH I Test Insert	Not available. Not available. Not available. Not available. Not available. Not available.
<b>Decomposition temperature</b>	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain Lambda FixII Vector Predigested With Xho I XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E. coli Strain pMF/BamH I Test Insert	Not available. Not available. Not available. Not available. Not available. Not available.
<b>Viscosity</b>	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain Lambda FixII Vector Predigested With Xho I XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E. coli Strain pMF/BamH I Test Insert	Not available. Not available. Not available. Not available. Not available. Not available.

**SECTION 9: Physical and chemical properties**

<b>Explosive properties</b>	: Gigapack III XL - 11 packaging extract	Not available.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
	VCS257 E. coli Strain	Not available.
	Lambda FixII Vector	Not available.
	Predigested With Xho I	
	XL1-Blue MRA E.coli Strain	Not available.
	XL1-Blue MRA (p2) E. coli Strain	Not available.
	pMF/BamH I Test Insert	Not available.
<b>Oxidising properties</b>	: Gigapack III XL - 11 packaging extract	Not available.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
	VCS257 E. coli Strain	Not available.
	Lambda FixII Vector	Not available.
	Predigested With Xho I	
	XL1-Blue MRA E.coli Strain	Not available.
	XL1-Blue MRA (p2) E. coli Strain	Not available.
	pMF/BamH I Test Insert	Not available.

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector	No specific test data related to reactivity available for this product or its ingredients.
	Predigested With Xho I	
	XL1-Blue MRA E.coli Strain	No specific test data related to reactivity available for this product or its ingredients.
	XL1-Blue MRA (p2) E. coli Strain	No specific test data related to reactivity available for this product or its ingredients.
	pMF/BamH I Test Insert	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: Gigapack III XL - 11 packaging extract	The product is stable.
	Wild-Type Lambda DNA c1857ind 1 Sam7	The product is stable.
	VCS257 E. coli Strain	The product is stable.
	Lambda FixII Vector	The product is stable.
	Predigested With Xho I	
	XL1-Blue MRA E.coli Strain	The product is stable.
	XL1-Blue MRA (p2) E. coli Strain	The product is stable.
	pMF/BamH I Test Insert	The product is stable.

## SECTION 10: Stability and reactivity

<b>10.3 Possibility of hazardous reactions</b>	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain  Lambda FixII Vector Predigested With Xho I XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E. coli Strain pMF/BamH I Test Insert	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain Lambda FixII Vector Predigested With Xho I XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E. coli Strain pMF/BamH I Test Insert	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
<b>10.5 Incompatible materials</b>	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain Lambda FixII Vector Predigested With Xho I XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E. coli Strain pMF/BamH I Test Insert	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
<b>10.6 Hazardous decomposition products</b>	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain  Lambda FixII Vector Predigested With Xho I XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E. coli Strain pMF/BamH I Test Insert	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>VCS257 E. coli Strain</b> Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
<b>XL1-Blue MRA E.coli Strain</b> Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
<b>XL1-Blue MRA (p2) E.coli Strain</b> Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

#### Acute toxicity estimates

Not available.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>VCS257 E. coli Strain</b> 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 MRA E.coli Strain</b> 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 MRA (p2) E.coli Strain</b> Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

#### Sensitiser

**Conclusion/Summary** : Not available.

#### Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

#### Information on likely routes of exposure

Gigapack III XL - 11 packaging extract	Not available.
Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
VCS257 E. coli Strain	Routes of entry anticipated: Oral, Dermal, Inhalation.
Lambda FixII Vector Predigested With Xho I	Not available.

## SECTION 11: Toxicological information

XL1-Blue MRA E.coli Strain	Routes of entry anticipated: Oral, Dermal, Inhalation.
XL1-Blue MRA (p2) E.coli Strain	Routes of entry anticipated: Oral, Dermal, Inhalation.
pMF/BamH I Test Insert	Not available.

### Potential acute health effects

<b>Inhalation</b>	:	Gigapack III XL - 11 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.
		Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
		XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
		XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
		pMF/BamH I Test Insert	No known significant effects or critical hazards.
<b>Ingestion</b>	:	Gigapack III XL - 11 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.
		Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
		XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
		XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
		pMF/BamH I Test Insert	No known significant effects or critical hazards.
<b>Skin contact</b>	:	Gigapack III XL - 11 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.
		Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
		XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
		XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
		pMF/BamH I Test Insert	No known significant effects or critical hazards.
<b>Eye contact</b>	:	Gigapack III XL - 11 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.
		Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
		XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
		XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
		pMF/BamH I Test Insert	No known significant effects or critical hazards.

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

<b>Inhalation</b>	:	Gigapack III XL - 11 packaging extract	No specific data.
		Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
		VCS257 E. coli Strain	No specific data.
		Lambda FixII Vector Predigested With Xho I	No specific data.



**SECTION 11: Toxicological information**

	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E.coli Strain	No specific data.
	pMF/BamH I Test Insert	No specific data.
<b>Ingestion</b>	: Gigapack III XL - 11 packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	No specific data.
	Lambda FixII Vector Predigested With Xho I	No specific data.
	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E.coli Strain	No specific data.
	pMF/BamH I Test Insert	No specific data.
<b>Skin contact</b>	: Gigapack III XL - 11 packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	No specific data.
	Lambda FixII Vector Predigested With Xho I	No specific data.
	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E.coli Strain	No specific data.
	pMF/BamH I Test Insert	No specific data.
<b>Eye contact</b>	: Gigapack III XL - 11 packaging extract	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
	VCS257 E. coli Strain	No specific data.
	Lambda FixII Vector Predigested With Xho I	No specific data.
	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E.coli Strain	No specific data.
	pMF/BamH I Test Insert	No specific data.

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

**Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

<b>General</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.

**SECTION 11: Toxicological information**

	XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
	pMF/BamH I Test Insert	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
	XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
	pMF/BamH I Test Insert	No known significant effects or critical hazards.
<b>Mutagenicity</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
	XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
	pMF/BamH I Test Insert	No known significant effects or critical hazards.
<b>Teratogenicity</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
	XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
	pMF/BamH I Test Insert	No known significant effects or critical hazards.
<b>Developmental effects</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
	XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.
	pMF/BamH I Test Insert	No known significant effects or critical hazards.
<b>Fertility effects</b>	: Gigapack III XL - 11 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.
	Lambda FixII Vector Predigested With Xho I	No known significant effects or critical hazards.
	XL1-Blue MRA E.coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRA (p2) E. coli Strain	No known significant effects or critical hazards.

**SECTION 11: Toxicological information**

coli Strain  
pMF/BamH I Test Insert No known significant effects or critical hazards.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
<b>VCS257 E. coli Strain</b> Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	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
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks
<b>XL1-Blue MRA E.coli Strain</b> Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	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
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks
<b>XL1-Blue MRA (p2) E.coli Strain</b> Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	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
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks

**12.2 Persistence and degradability**

Not available.

## SECTION 12: Ecological information

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

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

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

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

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

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

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

#### Packaging

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

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

### Regulatory information

**ADR/RID / IMDG / IATA** : Not regulated.

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

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

## SECTION 15: Regulatory information

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

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

#### Annex XIV - List of substances subject to authorisation

#### Annex XIV

None of the components are listed.

#### Substances of very high concern

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

28/30

## SECTION 15: Regulatory information

None of the components are listed.

<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	<b>Gigapack III XL - 11 packaging extract</b>	Not applicable.
	<b>Wild-Type Lambda DNA c1857ind 1 Sam7</b>	Not applicable.
	<b>VCS257 E. coli Strain</b>	Not applicable.
	<b>Lambda FixII Vector</b>	Not applicable.
	<b>Predigested With Xho I</b>	
	<b>XL1-Blue MRA E.coli Strain</b>	Not applicable.
	<b>XL1-Blue MRA (p2) E. coli Strain</b>	Not applicable.
	<b>pMF/BamH I Test Insert</b>	Not applicable.

### Other EU regulations

**Europe inventory** : All components are listed or exempted.

### Seveso Directive

This product is not controlled under the Seveso Directive.

### National regulations

#### International regulations

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

Not listed.

### Montreal Protocol (Annexes A, B, C, E)

Not listed.

### Stockholm Convention on Persistent Organic Pollutants

Not listed.

### Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### International lists

#### National inventory

**Australia** : Not determined.

**Canada** : At least one component is not listed in DSL but all such components are listed in NDSL.

**China** : Not determined.

**Japan** : **Japan inventory (ENCS)**: Not determined.  
**Japan inventory (ISHL)**: Not determined.

**Malaysia** : Not determined.

**New Zealand** : All components are listed or exempted.

**Philippines** : Not determined.

**Republic of Korea** : Not determined.

**Taiwan** : All components are listed or exempted.

**Turkey** : Not determined.

**United States** : All components are listed or exempted.

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

## SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

- : ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

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

Classification	Justification
Not classified.	

**Full text of abbreviated H statements**

- : **VCS257 E. coli Strain H319** Causes serious eye irritation.
- : **XL1-Blue MRA E.coli Strain H319** Causes serious eye irritation.
- : **XL1-Blue MRA (p2) E. coli Strain H319** Causes serious eye irritation.

**Full text of classifications [CLP/GHS]**

- : **VCS257 E. coli Strain Eye Irrit. 2, H319** SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
- : **XL1-Blue MRA E.coli Strain Eye Irrit. 2, H319** SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
- : **XL1-Blue MRA (p2) E. coli Strain Eye Irrit. 2, H319** SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

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

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

**Version** : 1

### Notice to reader

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