SAFETY DATA SHEET



Lambda EMBL3 - BamH I Gigapack III Gold Cloning Kit, Part Number 241612

Section 1. Identification

Product identifier

: Lambda EMBL3 - BamH I Gigapack III Gold Cloning Kit, Part Number 241612

Part no. (chemical kit)

241612

Part no.

: XL1-Blue MRA E.coli Strain 200302-81 XL1-Blue MRA (p2) E.coli Strain 200303-81 Lambda EMBL3 Vector Double Digested 241211-51

With EcoR I And BamH I CIAP Treated

pME/Bam HI Test Insert 210200-53 Gigapack III packaging extract 200201-41 VCS257 E. coli Strain 200256-51 Wild-Type Lambda DNA c1857ind 1 246203-51

Sam7

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

Material uses

: Analytical reagent.

L1-Blue MRA E.coli Strain 0.5 ml XL1-Blue MRA (p2) E.coli Strain 0.5 ml

Lambda EMBL3 Vector Double Digested $0.01 \text{ ml} (10 \mu g \ 1 \mu g/\mu l)$

With EcoR I And BamH I CIAP Treated

pME/Bam HI Test Insert $0.01 \text{ ml} (2.5 \mu g \ 0.25 \mu g/\mu l)$ Gigapack III packaging extract 0.275 ml (11 x 0.025 ml) VCS257 E. coli Strain

Wild-Type Lambda DNA c1857ind 1

Sam7

Supplier/Manufacturer

: Agilent Technologies Australia Pty Ltd

679 Springvale Road

Mulgrave

Strain

extract

Victoria 3170, Australia

1800 802 402

Emergency telephone number (with hours of operation)

: CHEMTREC®: +(61)-290372994

XL1-Blue MRA (p2) E.coli

Gigapack III packaging

VCS257 E. coli Strain

Section 2. Hazard(s) identification

Classification of the substance or mixture

Not classified.

XL1-Blue MRA E.coli Strain Percentage of the mixture consisting of ingredient(s)

of unknown inhalation toxicity: 10 - 30%

Percentage of the mixture consisting of ingredient(s)

of unknown inhalation toxicity: 10 - 30%

Percentage of the mixture consisting of ingredient(s)

 $0.005 \text{ ml} (1.05 \mu \text{g} \ 0.21 \mu \text{g/µl})$

of unknown inhalation toxicity: 1 - 10%

Percentage of the mixture consisting of ingredient(s)

of unknown inhalation toxicity: 10 - 30%

GHS label elements

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version: 4 1/29

Section 2. Hazar	d(s)	identification	
Signal word	• (•)	XL1-Blue MRA E.coli Strain	No signal word.
Olgilai Word	·	XL1-Blue MRA (p2) E.coli Strain	No signal word.
		Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	No signal word.
		pME/Bam HI Test Insert	No signal word.
		Gigapack III packaging extract	No signal word.
		VCS257 E. coli Strain	No signal word.
		Wild-Type Lambda DNA c1857ind 1 Sam7	No signal word.
Hazard statements	:	XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	No known significant effects or critical hazards. No known significant effects or critical hazards.
		Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	No known significant effects or critical hazards.
		pME/Bam HI Test Insert Gigapack III packaging extract	No known significant effects or critical hazards. No known significant effects or critical hazards.
		VCS257 E. coli Strain	No known significant effects or critical hazards.
		Wild-Type Lambda DNA c1857ind 1 Sam7	No known significant effects or critical hazards.
Precautionary statement	<u>s</u>		
Prevention	:	XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not applicable. Not applicable.
		Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	Not applicable.
		pME/Bam HI Test Insert	Not applicable.
		Gigapack III packaging extract	Not applicable.
		VCS257 E. coli Strain	Not applicable.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.
Response	:	XL1-Blue MRA E.coli Strain	Not applicable.
		XL1-Blue MRA (p2) E.coli Strain	Not applicable.
		Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	Not applicable.
		pME/Bam HI Test Insert	Not applicable.
		Gigapack III packaging extract	Not applicable.
		VCS257 E. coli Strain	Not applicable.
		Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.
Storage	:	XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not applicable. Not applicable.
		Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	Not applicable.
		pME/Bam HI Test Insert	Not applicable.

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version: 4 2/29

Not applicable.

Not applicable.

Not applicable.

Gigapack III packaging

VCS257 E. coli Strain Wild-Type Lambda DNA

c1857ind 1 Sam7

extract

Section 2. Hazard(s) identification

Disposal

XL1-Blue MRA E.coli Strain Not applicable. XL1-Blue MRA (p2) E.coli Not applicable. Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

Not applicable. Not applicable.

Not applicable.

Gigapack III packaging extract

Not applicable. Not applicable.

VCS257 E. coli Strain Wild-Type Lambda DNA

c1857ind 1 Sam7

Supplemental label elements

Additional warning phrases

: XL1-Blue MRA E.coli Strain Not applicable. XL1-Blue MRA (p2) E.coli Not applicable. Strain Not applicable.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging extract

Not applicable. Not applicable.

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

Not applicable. Not applicable.

Other hazards which do not result in classification

XL1-Blue MRA E.coli Strain None known. XL1-Blue MRA (p2) E.coli None known. Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated

None known.

pME/Bam HI Test Insert Gigapack III packaging extract

None known. None known.

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

None known. None known.

Section 3. Composition and ingredient information

Substance/mixture

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

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

Mixture

Gigapack III packaging extract

Mixture Mixture

VCS257 E. coli Strain Wild-Type Lambda DNA Mixture Mixture

c1857ind 1 Sam7

CAS number/other identifiers

Date of issue/Date of revision : 30/04/2018 : 29/02/2016 Date of previous issue Version: 4 3/29

Section 3. Composition and ingredient information

Ingredient name	% (w/w)	CAS number
XL1-Blue MRA E.coli Strain Glycerol	≥10 - ≤30	56-81-5
XL1-Blue MRA (p2) E.coli Strain Glycerol	≥10 - ≤30	56-81-5
Gigapack III packaging extract Sucrose	≤10	57-50-1
VCS257 E. coli Strain Glycerol	≥10 - ≤30	56-81-5

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

Occupational exposur	e limits, if available, are listed in Sect	ion 8.
Section 4. Firs	st aid measures	
Description of necess	ary first aid measures	
Eye contact	: KL1-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.
	Lambda EMBL3 Vector	Immediately flush eyes with plenty of water,
	Double Digested With EcoR I And BamH I CIAP Treated	occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	pME/Bam HI 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.
	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.
	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.
	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.
Inhalation	: KL1-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.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical
	Oissanash III saakanisas	attention if symptoms occur.

: 30/04/2018 Date of issue/Date of revision Date of previous issue : 29/02/2016 Version: 4 4/29

Remove victim to fresh air and keep at rest in a

Gigapack III packaging

extract 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.

Wild-Type Lambda DNA Remove victim to fresh air and keep at rest in a c1857ind 1 Sam7 position comfortable for breathing. Get medical

attention if symptoms occur.

: XL1-Blue MRA E.coli Strain Skin contact Flush contaminated skin with plenty of water.

Remove contaminated clothing and shoes. Get

medical attention if symptoms occur.

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

medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Lambda EMBL3 Vector Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

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

medical attention if symptoms occur.

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

medical attention if symptoms occur.

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

medical attention if symptoms occur.

Wild-Type Lambda DNA Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. 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.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated

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.

pME/Bam HI 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.

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

XL1-Blue MRA (p2) E.coli

Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

Gigapack III packaging

VCS257 E. coli Strain

c1857ind 1 Sam7

Ingestion

Gigapack III packaging

: 29/02/2016 Date of issue/Date of revision : 30/04/2018 Date of previous issue Version: 4 5/29

VCS257 E. coli Strain

attention if symptoms occur.

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.

Most important symptoms/effects, acute and delayed Potential acute health effects

Eye contact

: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

Inhalation

XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging extract

c1857ind 1 Sam7

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

: XL1-Blue MRA E.coli Strain

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

Skin contact

XL1-Blue MRA (p2) E.coli Strain Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7 No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

Ingestion

XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain Lambda EMBL3 Vector

Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 6/29

	Gigapack III packaging extract	No known significant effects or critical hazards.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	No known significant effects or critical hazards. No known significant effects or critical hazards.
Over-exposure signs/sy	<u>mptoms</u>	
Eye contact	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	No specific data. No specific data.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	No specific data.
	pME/Bam HI Test Insert	No specific data.
	Gigapack III packaging extract	No specific data.
	VCS257 E. coli Strain	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
Inhalation	: XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E.coli Strain	No specific data.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	No specific data.
	pME/Bam HI Test Insert	No specific data.
	Gigapack III packaging extract	No specific data.
	VCS257 E. coli Strain	No specific data.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data.
Skin contact	: XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E.coli Strain	No specific data.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	No specific data.
	pME/Bam HI Test Insert	No specific data.
	Gigapack III packaging extract	No specific data.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	No specific data. No specific data.
Ingestion	: XL1-Blue MRA E.coli Strain	No specific data.
ŭ	XL1-Blue MRA (p2) E.coli Strain	No specific data.
	Lambda EMBL3 Vector Double Digested With EcoR	No specific data.

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

I And BamH I CIAP Treated pME/Bam HI Test Insert

Gigapack III packaging

VCS257 E. coli Strain

Wild-Type Lambda DNA c1857ind 1 Sam7

extract

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 7/29

No specific data. No specific data.

No specific data.

No specific data.

Note	es to	phy	vsic	ian
	,, ,,	P	,	

: 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.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

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.

Gigapack III packaging

extract

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.

Wild-Type Lambda DNA c1857ind 1 Sam7

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

Specific treatments

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

No specific treatment. No specific treatment.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

No specific treatment.

Gigapack III packaging extract VCS257 E. coli Strain

No specific treatment. No specific treatment.

Wild-Type Lambda DNA c1857ind 1 Sam7

No specific treatment. No specific treatment.

Protection of first-aiders

: 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.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated

No action shall be taken involving any personal risk or without suitable training.

pME/Bam HI Test Insert

No action shall be taken involving any personal risk or without suitable training.

Gigapack III packaging

extract VCS257 E. coli Strain No action shall be taken involving any personal risk or without suitable training.

Wild-Type Lambda DNA

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.

c1857ind 1 Sam7

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media

: 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.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

Use an extinguishing agent suitable for the surrounding fire.

Use an extinguishing agent suitable for the

: 30/04/2018 Date of issue/Date of revision Date of previous issue : 29/02/2016 8/29 Version: 4

Section 5. Firefighting measures

surrounding fire. Gigapack III packaging Use an extinguishing agent suitable for the extract surrounding fire. VCS257 E. coli Strain Use an extinguishing agent suitable for the surrounding fire. Wild-Type Lambda DNA Use an extinguishing agent suitable for the c1857ind 1 Sam7 surrounding fire. **Unsuitable extinguishing** : XL1-Blue MRA E.coli Strain None known. XL1-Blue MRA (p2) E.coli media None known. Strain Lambda EMBL3 Vector None known. Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert None known. Gigapack III packaging None known. extract VCS257 E. coli Strain None known. Wild-Type Lambda DNA None known. c1857ind 1 Sam7 Specific hazards arising : XL1-Blue MRA E.coli Strain In a fire or if heated, a pressure increase will occur from the chemical and the container may burst. XL1-Blue MRA (p2) E.coli In a fire or if heated, a pressure increase will occur Strain and the container may burst. In a fire or if heated, a pressure increase will occur Lambda EMBL3 Vector Double Digested With EcoR and the container may burst. I And BamH I CIAP Treated pME/Bam HI Test Insert In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur Gigapack III packaging extract and the container may burst. In a fire or if heated, a pressure increase will occur VCS257 E. coli Strain and the container may burst. Wild-Type Lambda DNA In a fire or if heated, a pressure increase will occur c1857ind 1 Sam7 and the container may burst. XL1-Blue MRA E.coli Strain **Hazardous thermal** Decomposition products may include the following materials: decomposition products carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides XL1-Blue MRA (p2) E.coli Decomposition products may include the following Strain materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides Lambda EMBL3 Vector No specific data. Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert No specific data. Gigapack III packaging Decomposition products may include the following extract materials: carbon dioxide carbon monoxide VCS257 E. coli Strain Decomposition products may include the following materials: carbon dioxide carbon monoxide

Date of issue/Date of revision: 30/04/2018Date of previous issue: 29/02/2016Version: 49/29

Wild-Type Lambda DNA

halogenated compounds metal oxide/oxides

No specific data.

Section 5. Firefighting measures

c1857ind 1 Sam7

Special protective actions for fire-fighters

: 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.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated 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.

pME/Bam HI 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.

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.

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.

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.

Special protective equipment for fire-fighters

: 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.

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.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

pME/Bam HI 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.

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.

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.

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.

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 10/29

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: 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.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated

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.

pME/Bam HI 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.

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 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.

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.

For emergency responders : XL1-Blue MRA E.coli Strain

XL1-Blue MRA (p2) E.coli Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated

pME/Bam HI Test Insert

extract

Gigapack III packaging

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". 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". 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". 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". 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

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version: 4 11/29

Section 6. Accidental release measures

VCS257 E. coli Strain

information in "For non-emergency personnel". If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". 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".

Wild-Type Lambda DNA c1857ind 1 Sam7

Environmental precautions

: 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).

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated 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, acil or pix)

pME/Bam HI 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)

Gigapack III 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).

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).

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).

Methods and material for containment and cleaning up

Methods for cleaning up : 🗵

: XL1-Blue MRA 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.

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.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated 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

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 12/29

Section 6. Accidental release measures

inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

pME/Bam HI 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.

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.

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.

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 7. Handling and storage

Precautions for safe handling

Protective measures

: XL1-Blue MRA E.coli Strain

XL1-Blue MRA (p2) E.coli Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

Gigapack III packaging extract

VCS257 E. coli Strain

Wild-Type Lambda DNA c1857ind 1 Sam7

: XL1-Blue MRA E.coli Strain

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).

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.

Eating, drinking and smoking should be prohibited in

Advice on general occupational hygiene

Lambda EMBL3 Vector

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version: 4 13/29

Section 7. Handling and storage

Double Digested With EcoR I And BamH I CIAP Treated

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.

pME/Bam HI 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.

Gigapack III packaging extract

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

VCS257 E. coli Strain

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

Wild-Type Lambda DNA c1857ind 1 Sam7

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.

hygiene measures.

Conditions for safe storage, : KL1-Blue MRA E.coli Strain including any incompatibilities

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

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated

Date of issue/Date of revision : 30/04/2018 : 29/02/2016 Version: 4 14/29 Date of previous issue

Section 7. Handling and storage

pME/Bam HI Test Insert

Gigapack III packaging

VCS257 E. coli Strain

extract

..

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

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

incompatible materials before handling or use.
Store in accordance with local regulations. Store in original container protected from direct sunlight in a

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

incompatible materials before handling or use. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from

incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for

incompatible materials before handling or use. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and

drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

c1857ind 1 Sam7

Wild-Type Lambda DNA

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 15/29

Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
XL1-Blue MRA E.coli Strain	Octo Monto Acceptation (Acceptation 4/0044)
Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m³ 8 hours.
XL1-Blue MRA (p2) E.coli Strain	
Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m³ 8 hours.
Gigapack III packaging extract	
Sucrose	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m³ 8 hours.
VCS257 E. coli Strain	
Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m³ 8 hours.

Appropriate engineering controls

Environmental exposure controls

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

Individual protection measures

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.

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 16/29

Section 9. Phys	sical and chemical prop	perties
Appearance		
Physical state	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Liquid. Liquid.
	Lambda EMBL3 Vector Double Digested With EcoR	Liquid.
	I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging extract	Liquid. Liquid.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Liquid. Liquid.
Colour	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not available. Not available.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	Not available.
	pME/Bam HI Test Insert Gigapack III packaging extract	Not available. Not available.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available.
Odour	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not available. Not available.
	Lambda EMBL3 Vector Double Digested With EcoR	Not available.
	I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging extract	Not available. Not available.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available.
Odour threshold	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not available. Not available.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	Not available.
	pME/Bam HI Test Insert Gigapack III packaging extract	Not available. Not available.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available.
рН	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	7 7
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	7
	pME/Bam HI Test Insert	7.5

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 17/29

8

7

7

Gigapack III packaging

VCS257 E. coli Strain

c1857ind 1 Sam7

Wild-Type Lambda DNA

extract

Section 9. Physical and chemical properties

occion o. i nysica	and onomious pro	portioo
Melting point	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not available. Not available.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	
	pME/Bam HI Test Insert Gigapack III packaging extract	0°C (32°F) Not available.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. 0°C (32°F)
Boiling point	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not available. Not available.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	
	pME/Bam HI Test Insert Gigapack III packaging extract	100°C (212°F) Not available.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. 100°C (212°F)
Flash point	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not available. Not available.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	
	pME/Bam HI Test Insert Gigapack III packaging extract	Not available. Not available.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available.
Evaporation rate	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	
	pME/Bam HI Test Insert Gigapack III packaging extract	Not available. Not available.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available.
Flammability (solid, gas)	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not applicable. Not applicable.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	
	pME/Bam HI Test Insert Gigapack III packaging extract	Not applicable. Not applicable.
	VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable. Not applicable.

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 18/29

Section 9. Physical and chemical properties

occitori o: i riyorca	ii ana chemicai proj	
Lower and upper explosive (flammable) limits	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not available. Not available.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	Not available.
	pME/Bam HI Test Insert	Not available.
	Gigapack III packaging extract	Not available.
	VCS257 E. coli Strain Wild-Type Lambda DNA	Not available. Not available.
	c1857ind 1 Sam7	
Vapour pressure	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not available. Not available.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	Not available.
	pME/Bam HI Test Insert	Not available.
	Gigapack III packaging extract	Not available.
	VCS257 E. coli Strain	Not available.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
Vapour density	: XL1-Blue MRA E.coli Strain	Not available.
	XL1-Blue MRA (p2) E.coli Strain	Not available.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	Not available.
	pME/Bam HI Test Insert	Not available.
	Gigapack III packaging extract	Not available.
	VCS257 E. coli Strain Wild-Type Lambda DNA	Not available. Not available.
	c1857ind 1 Sam7	
Relative density	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	Not available. Not available.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	Not available.
	pME/Bam HI Test Insert	Not available.
	Gigapack III packaging extract	Not available.
	VCS257 E. coli Strain	Not available.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.
Solubility	: XL1-Blue MRA E.coli Strain	Soluble in the following materials: cold water and hot water.
	XL1-Blue MRA (p2) E.coli Strain	Soluble in the following materials: cold water and hot water.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	Easily soluble in the following materials: cold water and hot water.
	pME/Bam HI Test Insert	Easily soluble in the following materials: cold water and hot water.
	Gigapack III packaging	Easily soluble in the following materials: cold water
	extract VCS257 E. coli Strain	and hot water. Easily soluble in the following materials: cold water
	Wild-Type Lambda DNA	and hot water. Easily soluble in the following materials: cold water

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 19/29

Section 9. Physical and chemical properties

	•
	c1857ind 1 Sam7
Partition coefficient: n-octanol/water	: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging extract

and hot water. Not available. Not available.

Not available.

ackaging VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

Not available. Not available.

Not available. Not available.

Auto-ignition temperature

XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Lambda EMBL3 Vector

Not available. Not available.

Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging

Not available.

extract VCS257 E. coli Strain

Not available. Not available.

Wild-Type Lambda DNA c1857ind 1 Sam7

Not available. Not available.

Decomposition temperature

: XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

Not available. Not available.

Not available.

Gigapack III packaging extract

Not available. Not available.

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

Not available. Not available.

Viscosity

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

Not available. Not available.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated

Not available.

pME/Bam HI Test Insert Gigapack III packaging

Not available. Not available.

extract VCS257 E. coli Strain Wild-Type Lambda DNA

Not available. Not available.

c1857ind 1 Sam7

Section 10. Stability and reactivity

Reactivity

: 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.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

No specific test data related to reactivity available for this product or its ingredients.

No specific test data related to reactivity available for this product or its ingredients.

No specific test data related to reactivity available for

Gigapack III packaging

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version: 4 20/29

Section 10. Stability and reactivity

VCS257 E. coli Strain

this product or its ingredients.

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.

Chemical stability

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

The product is stable. The product is stable.

Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging

The product is stable.

extract

The product is stable. The product is stable.

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

The product is stable. The product is stable.

Possibility of hazardous reactions

: XL1-Blue MRA E.coli Strain

XL1-Blue MRA (p2) E.coli Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

Gigapack III packaging extract

VCS257 E. coli Strain Wild-Type Lambda DNA

c1857ind 1 Sam7

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

Under normal conditions of storage and use,

Under normal conditions of storage and use,

Under normal conditions of storage and use,

hazardous reactions will not occur.

hazardous reactions will not occur.

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.

Conditions to avoid

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

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging

extract VCS257 E. coli Strain

Wild-Type Lambda DNA c1857ind 1 Sam7

No specific data. No specific data.

No specific data.

No specific data. No specific data.

No specific data. No specific data.

Incompatible materials

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

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging extract

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

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.

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version: 4 21/29

Section 10. Stability and reactivity

Hazardous decomposition products

: XL1-Blue MRA E.coli Strain

Under normal conditions of storage and use, hazardous decomposition products should not be

produced.

XL1-Blue MRA (p2) E.coli

Strain

Under normal conditions of storage and use, hazardous decomposition products should not be

produced.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI 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.

Gigapack III packaging

extract

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.

Wild-Type Lambda DNA c1857ind 1 Sam7

Under normal conditions of storage and use, hazardous decomposition products should not be

produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
XL1-Blue MRA E.coli Strain Glycerol	LD50 Oral	Rat	12600 mg/kg	-
XL1-Blue MRA (p2) E.coli Strain Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Gigapack III packaging extract Sucrose	LD50 Oral	Rat	29700 mg/kg	-
VCS257 E. coli Strain Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
XL1-Blue MRA E.coli Strain					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
XL1-Blue MRA (p2) E.coli Strain					
Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
VCS257 E. coli Strain Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version: 4 22/29 Lambda EMBL3 - BamH I Gigapack III Gold Cloning Kit, Part Number 241612

Section 11. Toxicological information

	Skin - Mild irritant	Rabbit	-	24 hours 500	-
				milligrams	

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary

.

: Not available.

Carcinogenicity

Conclusion/Summary

: Not available.

Reproductive toxicity

Conclusion/Summary

: Not available.

Teratogenicity

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

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

Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

extract

VCS257 E. coli Strain Wild-Type Lambda DNA

Gigapack III packaging

c1857ind 1 Sam7

Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation.

Not available.

Not available. Not available.

Routes of entry anticipated: Oral, Dermal, Inhalation.

Not available.

Potential acute health effects

Eye contact

Inhalation

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

Strain

Lambda EMBL3 Vector
Double Digested With EcoR
I And BamH I CIAP Treated
pME/Bam HI Test Insert
Gigapack III packaging

extract

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

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

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging

extract

VCS257 E. coli Strain Wild-Type Lambda DNA No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 23/29

Section 11. Toxicological information

•			- 4	
Sĸ	ın	സ	nta	CT

c1857ind 1 Sam7

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

Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging extract

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

Ingestion

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

Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging extract

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

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

No specific data. No specific data.

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging

No specific data.

extract

No specific data. No specific data.

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

No specific data. No specific data.

Inhalation

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

No specific data. No specific data.

Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging

No specific data.

extract

No specific data. No specific data.

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

No specific data. No specific data.

Skin contact

L1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli

No specific data. No specific data.

Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated

No specific data.

No specific data.

pME/Bam HI Test Insert Gigapack III packaging extract

No specific data.

VCS257 E. coli Strain Wild-Type Lambda DNA

No specific data. No specific data.

: 30/04/2018 : 29/02/2016 Date of issue/Date of revision Version: 4 24/29 Date of previous issue

Section 11. Toxicological information

Ingestion

c1857ind 1 Sam7

XL1-Blue MRA E.coli Strain No sp XL1-Blue MRA (p2) E.coli No sp

Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

Gigapack III packaging

extract

VCS257 E. coli Strain Wild-Type Lambda DNA

c1857ind 1 Sam7

No specific data. No specific data.

No specific data.

No specific data. No specific data.

No specific data. No specific data.

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

Short term exposure

Potential immediate

effects

: Not available.

Potential delayed effects

: Not available.

Long term exposure

Potential immediate

effects

: Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General

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

Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging

extract

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

Carcinogenicity

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

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert

extract

VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7

Gigapack III packaging

Mutagenicity

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

Strain

Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated pME/Bam HI Test Insert Gigapack III packaging extract

VCS257 E. coli Strain Wild-Type Lambda DNA

c1857ind 1 Sam7

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 25/29

Section 11. Toxicological information

Teratogenicity	: K1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	No known significant effects or critical hazards. No known significant effects or critical hazards.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	No known significant effects or critical hazards.
	pME/Bam HI Test Insert	No known significant effects or critical hazards.
	Gigapack III packaging extract	No known significant effects or critical hazards.
	VCS257 E. coli Strain	No known significant effects or critical hazards.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No known significant effects or critical hazards.
Developmental effects	: 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.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	No known significant effects or critical hazards.
	pME/Bam HI Test Insert	No known significant effects or critical hazards.
	Gigapack III packaging extract	No known significant effects or critical hazards.
	VCS257 E. coli Strain	No known significant effects or critical hazards.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No known significant effects or critical hazards.
Fertility effects	: 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.
	Lambda EMBL3 Vector Double Digested With EcoR I And BamH I CIAP Treated	No known significant effects or critical hazards.
	pME/Bam HI Test Insert	No known significant effects or critical hazards.
	Gigapack III packaging extract	No known significant effects or critical hazards.
	VCS257 E. coli Strain	No known significant effects or critical hazards.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No known significant effects or critical hazards.

Numerical measures of toxicity Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
XL1-Blue MRA E.coli Strain Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
XL1-Blue MRA (p2) E.coli Strain Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
VCS257 E. coli Strain Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 26/29

Lambda EMBL3 - BamH I Gigapack III Gold Cloning Kit, Part Number 241612

Section 12. Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
KL1-Blue MRA E.coli Strain Glycerol	301D Ready Biodegradability - Closed Bottle	93 % - 30 days	-	-
XL1-Blue MRA (p2) E.coli Strain Glycerol	Test 301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
VCS257 E. coli Strain Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
XL1-Blue MRA E.coli Strain			
Glycerol	-1.76	-	low
XL1-Blue MRA (p2) E.coli			
Strain			
Glycerol	-1.76	-	low
Gigapack III packaging			
extract			
Sucrose	-3.7	-	low
VCS257 E. coli Strain			
Glycerol	-1.76	_	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

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

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 27/29

Section 14. Transport information

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

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

Transport in bulk according: Not available.

to Annex II of Marpol and

the IBC Code

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

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

NDSL.

China : Not determined.

: All components are listed or exempted. Europe

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

: Not determined. Malaysia

New Zealand : All components are listed or exempted.

Philippines : Not determined. Republic of Korea : Not determined.

Taiwan : All components are listed or exempted.

: Not determined. **Thailand** : Not determined. **Turkey**

United States : All components are listed or exempted.

: Not determined. Viet Nam

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version: 4 28/29

Section 16. Any other relevant information

History

Date of issue/Date of

revision

: 30/04/2018

Date of previous issue

: 29/02/2016

Version

: 4

Key to abbreviations

: ADG = Australian Dangerous Goods ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) NOHSC = National Occupational Health and Safety Commission SUSMP = Standard Uniform Schedule of Medicine and Poisons

UN = United Nations

Procedure used to derive the classification

Classification	Justification
Not classified.	

References : Not available.

▼ Indicates information that has changed from previously issued version.

Notice to reader

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

Date of issue/Date of revision : 30/04/2018 Date of previous issue : 29/02/2016 Version : 4 29/29