

SAFETY DATA SHEET



Lambda Dash II EcoR I-treated - Gigapack III Cloning Kit, Part Number 247614

Section 1. Identification

Product identifier : Lambda Dash II EcoR I-treated - Gigapack III Cloning Kit, Part Number 247614

Part no. (chemical kit) : 247614

Part no. : Lambda DASH II Vector Double Digested 247212-51
 With EcoR I And Xho I CIAP Treated
 XL1-Blue MRA E.coli Strain 200302-81
 XL1-Blue MRA (p2) E.coli Strain 200303-81
 pDT-RI/EcoR I Test Insert 210200-56
 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.

Lambda DASH II Vector Double Digested 0.01 ml (10 µg 1 µg/µl)
 With EcoR I And Xho I CIAP Treated
 XL1-Blue MRA E.coli Strain 0.5 ml
 XL1-Blue MRA (p2) E.coli Strain 0.5 ml
 pDT-RI/EcoR I Test Insert 0.005 ml (2 µg 0.4 µg/µl)
 Gigapack III packaging extract 0.275 ml
 VCS257 E. coli Strain 1 ml
 Wild-Type Lambda DNA c1857ind 1 0.005 ml (1.05 µg 0.21 µg/µl)
 Sam7

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

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

Section 2. Hazard(s) identification

Classification of the substance or mixture

Not classified.

<input checked="" type="checkbox"/> XL1-Blue MRA E.coli Strain	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
XL1-Blue MRA (p2) E.coli Strain	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
Gigapack III packaging extract	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
VCS257 E. coli Strain	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%

GHS label elements

Section 2. Hazard(s) identification

Signal word	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	No signal word. No signal word. No signal word. No signal word. No signal word. No signal word. No signal word.
Hazard statements	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.
<u>Precautionary statements</u>		
Prevention	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Response	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Storage	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

Section 2. Hazard(s) identification

Disposal	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Supplemental label elements		
Additional warning phrases	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Other hazards which do not result in classification	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	None known. None known. None known. None known. None known. None known.

Section 3. Composition and ingredient information

Substance/mixture	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Mixture Mixture Mixture Mixture Mixture Mixture Mixture Mixture
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CAS number/other identifiers

Section 3. Composition and ingredient information

Ingredient name	% (w/w)	CAS number
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 exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated	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.
	pDT-RI/EcoR 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.
	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	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated	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.
	pDT-RI/EcoR I Test Insert	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Gigapack III packaging	Remove victim to fresh air and keep at rest in a

Section 4. First aid measures

	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 c1857ind 1 Sam7	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	:  Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain	Flush contaminated skin with plenty of water. Remove 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.
	pDT-RI/EcoR I Test Insert	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Gigapack III packaging extract	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.
	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.
Ingestion	:  Lambda DASH II Vector Double Digested With EcoR I And Xho 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.
	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.
	pDT-RI/EcoR 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.
	Gigapack III packaging extract	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical

Section 4. First aid measures

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

- : Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated 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.
- : pDT-RI/EcoR I Test Insert 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.

Inhalation

- : Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated 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.
- : pDT-RI/EcoR I Test Insert 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.

Skin contact

- : Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated 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.
- : pDT-RI/EcoR I Test Insert 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.

Ingestion

- : Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated 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.
- : pDT-RI/EcoR I Test Insert Gigapack III packaging
No known significant effects or critical hazards.

Section 4. First aid measures

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

Over-exposure signs/symptoms

Eye contact	:	Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.		
		Inhalation	:	Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.
				Skin contact	:
Ingestion	:				

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

Section 4. First aid measures

Notes to physician	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated 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.
	pDT-RI/EcoR I Test Insert	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	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	No specific treatment.
	pDT-RI/EcoR I Test Insert	No specific treatment.
	Gigapack III packaging extract	No specific treatment.
	VCS257 E. coli Strain	No specific treatment.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No specific treatment.
Protection of first-aiders	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated 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.
	pDT-RI/EcoR I Test Insert	No action shall be taken involving any personal risk or without suitable training.
	Gigapack III packaging extract	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.
	Wild-Type Lambda DNA c1857ind 1 Sam7	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media


Suitable extinguishing media	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated 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.
	pDT-RI/EcoR I Test Insert	Use an extinguishing agent suitable for the surrounding fire.

Section 5. Firefighting measures


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

Section 5. Firefighting measures

Special protective actions for fire-fighters

:  Lambda DASH II Vector Double Digested With EcoR I And Xho 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.
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.
pDT-RI/EcoR 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.
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

:  Lambda DASH II Vector Double Digested With EcoR I And Xho 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.
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.
pDT-RI/EcoR 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.
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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures


For non-emergency personnel	<p>: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated</p> <p>XL1-Blue MRA E.coli Strain</p> <p>XL1-Blue MRA (p2) E.coli Strain</p> <p>pDT-RI/EcoR I Test Insert</p> <p>Gigapack III packaging extract</p> <p>VCS257 E. coli Strain</p> <p>Wild-Type Lambda DNA c1857ind 1 Sam7</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
For emergency responders	<p>: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated</p> <p>XL1-Blue MRA E.coli Strain</p> <p>XL1-Blue MRA (p2) E.coli Strain</p> <p>pDT-RI/EcoR I Test Insert</p> <p>Gigapack III packaging extract</p>	<p>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".</p> <p>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".</p> <p>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".</p> <p>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".</p> <p>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".</p>

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 :  Lambda DASH II Vector
Double Digested With EcoR
I And Xho 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, 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).

pDT-RI/EcoR 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).

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 :  Lambda DASH II Vector
Double Digested With EcoR
I And Xho 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 inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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

Section 6. Accidental release measures

pDT-RI/EcoR I Test Insert	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.
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

: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain	Put on appropriate personal protective equipment (see Section 8).
XL1-Blue MRA (p2) E.coli Strain	Put on appropriate personal protective equipment (see Section 8).
pDT-RI/EcoR I Test Insert	Put on appropriate personal protective equipment (see Section 8).
Gigapack III packaging extract	Put on appropriate personal protective equipment (see Section 8).
VCS257 E. coli Strain	Put on appropriate personal protective equipment (see Section 8).
Wild-Type Lambda DNA c1857ind 1 Sam7	Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated	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 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.
XL1-Blue MRA (p2) E.coli Strain	Potentially biohazardous material. Eating, drinking and smoking should be prohibited in areas where this

Section 7. Handling and storage

	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.
pDT-RI/EcoR 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.
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 additional information on hygiene measures.
VCS257 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.
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.
Conditions for safe storage, including any incompatibilities	
: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated	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.
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 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.
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

Section 7. Handling and storage

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

Section 8. Exposure controls and personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
XL1-Blue MRA E.coli Strain Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.
XL1-Blue MRA (p2) E.coli Strain Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.
Gigapack III packaging extract Sucrose	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.
VCS257 E. coli Strain Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.

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

Individual protection measures

- 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 9. Physical and chemical properties

Appearance

Physical state	:	Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Liquid. Liquid. Liquid. Liquid. Liquid. Liquid. Liquid.
Colour	:	Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Odour	:	Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Odour threshold	:	Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
pH	:	Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	7.5 7 7 7.5 8 7 7

Section 9. Physical and chemical properties

Melting point	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	0°C (32°F) Not available. Not available. 0°C (32°F) Not available. Not available. 0°C (32°F)
Boiling point	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	100°C (212°F) Not available. Not available. 100°C (212°F) Not available. Not available. 100°C (212°F)
Flash point	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Evaporation rate	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Flammability (solid, gas)	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Vapour pressure	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Vapour density	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Relative density	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Solubility	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA	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. 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

Section 9. Physical and chemical properties

	c1857ind 1 Sam7	and hot water.
Partition coefficient: n-octanol/water	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available.
Auto-ignition temperature	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available.
Decomposition temperature	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available.
Viscosity	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Not available. Not available. Not available. Not available. Not available.


Section 10. Stability and reactivity

Reactivity	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated 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.
	pDT-RI/EcoR I Test Insert	No specific test data related to reactivity available for this product or its ingredients.
	Gigapack III packaging	No specific test data related to reactivity available for


Section 10. Stability and reactivity

extract 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

:  Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	The product is stable. The product is stable. The product is stable.
pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	The product is stable. The product is stable. The product is stable. The product is stable.


Possibility of hazardous reactions

:  Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain	Under normal conditions of storage and use, hazardous reactions will not occur.
XL1-Blue MRA (p2) E.coli Strain	Under normal conditions of storage and use, hazardous reactions will not occur.
pDT-RI/EcoR I Test Insert	Under normal conditions of storage and use, hazardous reactions will not occur.
Gigapack III packaging extract	Under normal conditions of storage and use, hazardous reactions will not occur.
VCS257 E. coli Strain	Under normal conditions of storage and use, hazardous reactions will not occur.
Wild-Type Lambda DNA c1857ind 1 Sam7	Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

:  Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	No specific data. No specific data. No specific data.
pDT-RI/EcoR I 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.

Incompatible materials

:  Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
pDT-RI/EcoR I 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.

Section 10. Stability and reactivity

Hazardous decomposition products	Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated 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.
	pDT-RI/EcoR I Test Insert	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	-

Section 11. Toxicological information

	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
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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	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I Test Insert Gigapack III packaging extract VCS257 E. coli Strain Wild-Type Lambda DNA c1857ind 1 Sam7	Not available. Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation. Not available. Not available. Routes of entry anticipated: Oral, Dermal, Inhalation. Not available.
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Potential acute health effects

Eye contact	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.
Inhalation	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.

Section 11. Toxicological information

	c1857ind 1 Sam7	
Skin contact	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated	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.
	pDT-RI/EcoR I 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	No known significant effects or critical hazards.
	c1857ind 1 Sam7	
Ingestion	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated	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.
	pDT-RI/EcoR I 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	No known significant effects or critical hazards.
	c1857ind 1 Sam7	

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated	No specific data.
	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E.coli Strain	No specific data.
	pDT-RI/EcoR I Test Insert	No specific data.
	Gigapack III packaging extract	No specific data.
	VCS257 E. coli Strain	No specific data.
	Wild-Type Lambda DNA	No specific data.
	c1857ind 1 Sam7	
Inhalation	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated	No specific data.
	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E.coli Strain	No specific data.
	pDT-RI/EcoR I Test Insert	No specific data.
	Gigapack III packaging extract	No specific data.
	VCS257 E. coli Strain	No specific data.
	Wild-Type Lambda DNA	No specific data.
	c1857ind 1 Sam7	
Skin contact	: Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated	No specific data.
	XL1-Blue MRA E.coli Strain	No specific data.
	XL1-Blue MRA (p2) E.coli Strain	No specific data.
	pDT-RI/EcoR I Test Insert	No specific data.
	Gigapack III packaging extract	No specific data.
	VCS257 E. coli Strain	No specific data.
	Wild-Type Lambda DNA	No specific data.

Section 11. Toxicological information

Ingestion	: c1857ind 1 Sam7	
	: Lambda DASH II Vector	No specific data.
	: Double Digested With EcoR	
	: I And Xho I CIAP Treated	
	: XL1-Blue MRA E.coli Strain	No specific data.
	: XL1-Blue MRA (p2) E.coli	No specific data.
	: Strain	
	: pDT-RI/EcoR I Test Insert	No specific data.
: Gigapack III packaging	No specific data.	
: extract		
: VCS257 E. coli Strain	No specific data.	
: Wild-Type Lambda DNA	No specific data.	
: c1857ind 1 Sam7		

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 : Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.

Carcinogenicity : Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.

Mutagenicity : Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.

Section 11. Toxicological information

Teratogenicity	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.
Developmental effects	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.
Fertility effects	: <input checked="" type="checkbox"/> Lambda DASH II Vector Double Digested With EcoR I And Xho I CIAP Treated XL1-Blue MRA E.coli Strain XL1-Blue MRA (p2) E.coli Strain pDT-RI/EcoR I 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.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> 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

Section 12. Ecological information

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

Section 14. Transport information

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

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

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

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

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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.
Europe	: All components are listed or exempted.
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.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 21/02/2018
Date of previous issue : 29/02/2016
Version : 5

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

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