

SAFETY DATA SHEET



Lambda Select-cll Mutation Detection System for Big Blue Rodents, Part Number 720120

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

1.1 Product identifier

Product name	: Lambda Select-cll Mutation Detection System for Big Blue Rodents, Part Number 720120
Part no. (chemical kit)	: 720120
Part no.	: <input checked="" type="checkbox"/> Transpack Blue Tube 200220-41 Transpack Red Tube 200220-42 Big Blue Control 200220-43 Genomic DNA SCS-8 E. coli Strain 200288-81 G1250 E. coli Host Strain 720120-81 Control Phage Solution 720120-82

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

Material uses	: Analytical reagent.
	<input checked="" type="checkbox"/> Transpack packaging extract-Blue 1.4 ml Transpack packaging extract-Red 1 ml Big Blue Control Genomic DNA 0.02 ml SCS-8 E. coli Strain 1 ml G1250 E. coli Host Strain 1 ml Control Phage Solution 0.125 ml

1.3 Details of the supplier of the safety data sheet

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

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition	: <input checked="" type="checkbox"/> Transpack Blue Tube Mixture Transpack Red Tube Mixture Big Blue Control Mixture Genomic DNA SCS-8 E. coli Strain Mixture G1250 E. coli Host Strain Mixture Control Phage Solution Mixture
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Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

G1250 E. coli Host Strain
H373 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (kidneys) (inhalation) - Category 2

Date of issue/Date of revision : 23/05/2018

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SECTION 2: Hazards identification

Ingredients of unknown toxicity	: Transpack Blue Tube	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	Transpack Red Tube	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
	SCS-8 E. coli Strain	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
	G1250 E. coli Host Strain	Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%

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

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

2.2 Label elements

Hazard pictograms :  G1250 E. coli Host Strain 



Signal word	: Transpack Blue Tube	No signal word.
	Transpack Red Tube	No signal word.
	Big Blue Control	No signal word.
	Genomic DNA	
	SCS-8 E. coli Strain	No signal word.

Hazard statements	: Transpack Blue Tube	No known significant effects or critical hazards.
	Transpack Red Tube	No known significant effects or critical hazards.
	Big Blue Control	No known significant effects or critical hazards.
	Genomic DNA	
	SCS-8 E. coli Strain	No known significant effects or critical hazards.

Precautionary statements

Prevention	: Transpack Blue Tube	Not applicable.
	Transpack Red Tube	Not applicable.
	Big Blue Control	Not applicable.
	Genomic DNA	
	SCS-8 E. coli Strain	Not applicable.

Response	: Transpack Blue Tube	Not applicable.
	Transpack Red Tube	Not applicable.
	Big Blue Control	Not applicable.
	Genomic DNA	
	SCS-8 E. coli Strain	Not applicable.

Storage	: Transpack Blue Tube	Not applicable.
	Transpack Red Tube	Not applicable.
	Big Blue Control	Not applicable.
	Genomic DNA	
	SCS-8 E. coli Strain	Not applicable.

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SECTION 2: Hazards identification

Disposal	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Not applicable. Not applicable. Not applicable. Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. Not applicable.
Hazardous ingredients	:	SCS-8 E. coli Strain G1250 E. coli Host Strain	Not applicable. Not applicable.
Supplemental label elements	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Not applicable. Not applicable. Not applicable. Safety data sheet available on request. Not applicable. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Special packaging requirements			
Tactile warning of danger	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

2.3 Other hazards

Other hazards which do not result in classification	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	None known. None known. None known. None known. None known. None known.
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SECTION 3: Composition/information on ingredients

3.1 Substances	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Mixture Mixture Mixture Mixture Mixture Mixture
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Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type

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SECTION 3: Composition/information on ingredients

Transpack Blue Tube Sucrose	REACH #: Annex IV EC: 200-334-9 CAS: 57-50-1	≤10	Not classified.	[2]
Transpack Red Tube Sucrose	REACH #: Annex IV EC: 200-334-9 CAS: 57-50-1	≤10	Not classified.	[2]
SCS-8 E. coli Strain Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤3	Eye Irrit. 2, H319	[1]
G1250 E. coli Host Strain Glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤3	Eye Irrit. 2, H319	[1]
			See Section 16 for the full text of the H statements declared above.	

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

Type

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Transpack Blue Tube	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.
	Transpack Red Tube	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.
	Big Blue Control Genomic DNA	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.
	SCS-8 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.
	G1250 E. coli Host Strain	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.
	Control Phage Solution	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.

SECTION 4: First aid measures

Inhalation	: Transpack Blue Tube	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Transpack Red Tube	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Big Blue Control Genomic DNA	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	SCS-8 E. coli Strain	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	G1250 E. coli Host Strain	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Control Phage Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: Transpack Blue Tube	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Transpack Red Tube	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Big Blue Control Genomic DNA	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	SCS-8 E. coli Strain	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	G1250 E. coli Host Strain	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Control Phage Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Transpack Blue Tube	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.
	Transpack Red Tube	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.
	Big Blue Control Genomic DNA	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

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SECTION 4: First aid measures

SCS-8 E. coli Strain	induce vomiting unless directed to do so by medical personnel. Get medical 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.
G1250 E. coli Host Strain	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Control Phage Solution	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.
Protection of first-aiders : Transpack Blue Tube	No action shall be taken involving any personal risk or without suitable training.
Transpack Red Tube	No action shall be taken involving any personal risk or without suitable training.
Big Blue Control Genomic DNA	No action shall be taken involving any personal risk or without suitable training.
SCS-8 E. coli Strain	No action shall be taken involving any personal risk or without suitable training.
G1250 E. coli Host Strain	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Control Phage Solution	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	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	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	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.

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SECTION 4: First aid measures

Skin contact	: Transpack packaging extract-Blue	No known significant effects or critical hazards.
	Transpack packaging extract-Red	No known significant effects or critical hazards.
	Control DNA	No known significant effects or critical hazards.
	SCS-8 Host Strain	No known significant effects or critical hazards.
	G1250 Host Strain	No known significant effects or critical hazards.
Ingestion	: Transpack packaging extract-Blue	No known significant effects or critical hazards.
	Transpack packaging extract-Red	No known significant effects or critical hazards.
	Control DNA	No known significant effects or critical hazards.
	SCS-8 Host Strain	No known significant effects or critical hazards.
	G1250 Host Strain	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Transpack Blue Tube	No specific data.
	Transpack Red Tube	No specific data.
	Big Blue Control	No specific data.
	Genomic DNA	
	SCS-8 E. coli Strain	No specific data.
Inhalation	: Transpack Blue Tube	No specific data.
	Transpack Red Tube	No specific data.
	Big Blue Control	No specific data.
	Genomic DNA	
	SCS-8 E. coli Strain	No specific data.
Skin contact	: Transpack Blue Tube	No specific data.
	Transpack Red Tube	No specific data.
	Big Blue Control	No specific data.
	Genomic DNA	
	SCS-8 E. coli Strain	No specific data.
Ingestion	: Transpack Blue Tube	No specific data.
	Transpack Red Tube	No specific data.
	Big Blue Control	No specific data.
	Genomic DNA	
	SCS-8 E. coli Strain	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Transpack Blue Tube	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Transpack Red Tube	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Big Blue Control	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Genomic DNA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SCS-8 E. coli Strain	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	G1250 E. coli Host Strain	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Control Phage Solution	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

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SECTION 4: First aid measures

Specific treatments	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment.
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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
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Unsuitable extinguishing media	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	None known. None known. None known. None known. None known. None known. None known.
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5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	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 and the container may burst. 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 and the container may burst. 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 and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
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Hazardous combustion products	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide Decomposition products may include the following materials: carbon dioxide carbon monoxide No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides No specific data.
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5.3 Advice for firefighters



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SECTION 5: Firefighting measures

Special precautions for fire-fighters	: Transpack Blue Tube	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.
	Transpack Red Tube	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.
	Big Blue Control Genomic DNA	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.
	SCS-8 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.
	G1250 E. coli Host 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.
	Control Phage Solution	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	: Transpack Blue Tube	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Transpack Red Tube	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Big Blue Control Genomic DNA	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	SCS-8 E. coli Strain	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	G1250 E. coli Host Strain	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Control Phage Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:  Transpack Blue Tube	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.
	Transpack Red Tube	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.
	Big Blue Control Genomic DNA	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.
	SCS-8 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.
	G1250 E. coli Host 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Control Phage Solution	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	:  Transpack Blue Tube	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".
	Transpack Red Tube	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".
	Big Blue Control Genomic DNA	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".
	SCS-8 E. coli Strain	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	G1250 E. coli Host Strain	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Control Phage Solution	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".

SECTION 6: Accidental release measures

6.2 Environmental precautions	:	Transpack Blue Tube	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).
		Transpack Red Tube	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).
		Big Blue Control Genomic DNA	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).
		SCS-8 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).
		G1250 E. coli Host 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).
		Control Phage Solution	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Transpack Blue Tube	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.
		Transpack Red Tube	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.
		Big Blue Control Genomic DNA	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.
		SCS-8 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.
		G1250 E. coli Host 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.
		Control Phage Solution	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.
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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: Transpack Blue Tube	Put on appropriate personal protective equipment (see Section 8).
	Transpack Red Tube	Put on appropriate personal protective equipment (see Section 8).
	Big Blue Control Genomic DNA	Put on appropriate personal protective equipment (see Section 8).
	SCS-8 E. coli Strain	Put on appropriate personal protective equipment (see Section 8).
	G1250 E. coli Host Strain	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Control Phage Solution	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Transpack Blue Tube	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.
	Transpack Red Tube	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.
	Big Blue Control Genomic DNA	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.
	SCS-8 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.
	G1250 E. coli Host 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.
	Control Phage Solution	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage :

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SECTION 7: Handling and storage

Transpack Blue Tube	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.
Transpack Red Tube	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.
Big Blue Control Genomic DNA	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.
SCS-8 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.
G1250 E. coli Host 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.
Control Phage Solution	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.

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SECTION 7: Handling and storage

7.3 Specific end use(s)

Recommendations	: <input checked="" type="checkbox"/> Transpack Blue Tube <input type="checkbox"/> Transpack Red Tube <input type="checkbox"/> Big Blue Control <input type="checkbox"/> Genomic DNA <input type="checkbox"/> SCS-8 E. coli Strain <input type="checkbox"/> G1250 E. coli Host Strain <input type="checkbox"/> Control Phage Solution	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: <input checked="" type="checkbox"/> Transpack Blue Tube <input type="checkbox"/> Transpack Red Tube <input type="checkbox"/> Big Blue Control <input type="checkbox"/> Genomic DNA <input type="checkbox"/> SCS-8 E. coli Strain <input type="checkbox"/> G1250 E. coli Host Strain <input type="checkbox"/> Control Phage Solution	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
<input checked="" type="checkbox"/> Transpack Blue Tube Sucrose	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 20 mg/m ³ 15 minutes. TWA: 10 mg/m ³ 8 hours.
<input type="checkbox"/> Transpack Red Tube Sucrose	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 20 mg/m ³ 15 minutes. TWA: 10 mg/m ³ 8 hours.
<input type="checkbox"/> SCS-8 E. coli Strain Glycerol	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: Mist
<input type="checkbox"/> G1250 E. coli Host Strain Glycerol	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: Mist

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

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

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SECTION 8: Exposure controls/personal protection

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

Individual protection measures

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

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

Skin protection

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

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

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

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

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	Transpack Blue Tube	Liquid.	
		Transpack Red Tube	Liquid.	
		Big Blue Control	Liquid.	
		Genomic DNA		
		SCS-8 E. coli Strain	Liquid.	
		G1250 E. coli Host Strain	Liquid.	
		Control Phage Solution	Liquid.	
	Colour	:	Transpack Blue Tube	Not available.
			Transpack Red Tube	Not available.
		Big Blue Control	Not available.	
		Genomic DNA		
		SCS-8 E. coli Strain	Not available.	
		G1250 E. coli Host Strain	Not available.	
	Control Phage Solution	Not available.		

SECTION 9: Physical and chemical properties

Odour	:	Transpack Blue Tube	Not available.
		Transpack Red Tube	Not available.
		Big Blue Control	Not available.
		Genomic DNA	
		SCS-8 E. coli Strain	Not available.
		G1250 E. coli Host Strain	Not available.
		Control Phage Solution	Not available.
		Odour threshold	:
		Transpack Red Tube	Not available.
		Big Blue Control	Not available.
		Genomic DNA	
		SCS-8 E. coli Strain	Not available.
		G1250 E. coli Host Strain	Not available.
		Control Phage Solution	Not available.
pH	:	Transpack Blue Tube	8
		Transpack Red Tube	Not available.
		Big Blue Control	7.5
		Genomic DNA	
		SCS-8 E. coli Strain	7
		G1250 E. coli Host Strain	7
		Control Phage Solution	7.5
		Melting point/freezing point	:
Transpack Red Tube	Not available.		
Big Blue Control	0°C		
Genomic DNA			
SCS-8 E. coli Strain	Not available.		
G1250 E. coli Host Strain	Not available.		
Control Phage Solution	Not available.		
Initial boiling point and boiling range	:		
		Transpack Red Tube	Not available.
		Big Blue Control	100°C
		Genomic DNA	
		SCS-8 E. coli Strain	Not available.
		G1250 E. coli Host Strain	Not available.
		Control Phage Solution	Not available.
		Flash point	:
Transpack Red Tube	Not available.		
Big Blue Control	Not available.		
Genomic DNA			
SCS-8 E. coli Strain	Not available.		
G1250 E. coli Host Strain	Not available.		
Control Phage Solution	Not available.		
Evaporation rate	:		
		Transpack Red Tube	Not available.
		Big Blue Control	Not available.
		Genomic DNA	
		SCS-8 E. coli Strain	Not available.
		G1250 E. coli Host Strain	Not available.
		Control Phage Solution	Not available.

SECTION 9: Physical and chemical properties

Flammability (solid, gas)	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
Upper/lower flammability or explosive limits	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Vapour pressure	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Vapour density	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Relative density	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Solubility(ies)	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	:	Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain	Not available. Not available. Not available. Not available. Not available. Not available.

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SECTION 9: Physical and chemical properties

	Control Phage Solution	Not available.
Auto-ignition temperature	: Transpack Blue Tube	Not available.
	Transpack Red Tube	Not available.
	Big Blue Control	Not available.
	Genomic DNA	
	SCS-8 E. coli Strain	Not available.
	G1250 E. coli Host Strain	Not available.
	Control Phage Solution	Not available.
Decomposition temperature	: Transpack Blue Tube	Not available.
	Transpack Red Tube	Not available.
	Big Blue Control	Not available.
	Genomic DNA	
	SCS-8 E. coli Strain	Not available.
	G1250 E. coli Host Strain	Not available.
	Control Phage Solution	Not available.
Viscosity	: Transpack Blue Tube	Not available.
	Transpack Red Tube	Not available.
	Big Blue Control	Not available.
	Genomic DNA	
	SCS-8 E. coli Strain	Not available.
	G1250 E. coli Host Strain	Not available.
	Control Phage Solution	Not available.
Explosive properties	: Transpack Blue Tube	Not available.
	Transpack Red Tube	Not available.
	Big Blue Control	Not available.
	Genomic DNA	
	SCS-8 E. coli Strain	Not available.
	G1250 E. coli Host Strain	Not available.
	Control Phage Solution	Not available.
Oxidising properties	: Transpack Blue Tube	Not available.
	Transpack Red Tube	Not available.
	Big Blue Control	Not available.
	Genomic DNA	
	SCS-8 E. coli Strain	Not available.
	G1250 E. coli Host Strain	Not available.
	Control Phage Solution	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Transpack Blue Tube	No specific test data related to reactivity available for this product or its ingredients.
	Transpack Red Tube	No specific test data related to reactivity available for this product or its ingredients.
	Big Blue Control	No specific test data related to reactivity available for this product or its ingredients.
	Genomic DNA	
	SCS-8 E. coli Strain	No specific test data related to reactivity available for this product or its ingredients.
	G1250 E. coli Host Strain	No specific test data related to reactivity available for this product or its ingredients.
	Control Phage Solution	No specific test data related to reactivity available for this product or its ingredients.

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SECTION 10: Stability and reactivity

10.2 Chemical stability	: <input checked="" type="checkbox"/> Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: <input checked="" type="checkbox"/> Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: <input checked="" type="checkbox"/> Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
10.5 Incompatible materials	: <input checked="" type="checkbox"/> Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	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.
10.6 Hazardous decomposition products	: <input checked="" type="checkbox"/> Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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Product/ingredient name	Result	Species	Dose	Exposure
SCS-8 E. coli Strain Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-
G1250 E. coli Host Strain Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

Acute toxicity estimates

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
SCS-8 E. coli Strain Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
G1250 E. coli Host Strain Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitiser

Conclusion/Summary : Not available.

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)

Product/ingredient name	Category	Route of exposure	Target organs
G1250 E. coli Host Strain G1250 E. coli Host Strain	Category 2	Inhalation	kidneys

Aspiration hazard

Not available.

Information on likely routes of exposure

Transpack Blue Tube	Not available.
Transpack Red Tube	Not available.
Big Blue Control	Not available.
Genomic DNA	
SCS-8 E. coli Strain	Routes of entry anticipated: Oral, Dermal, Inhalation.
G1250 E. coli Host Strain	Routes of entry anticipated: Oral, Dermal, Inhalation.
Control Phage Solution	Not available.

Potential acute health effects

SECTION 11: Toxicological information

Inhalation	:	Transpack Blue Tube	No known significant effects or critical hazards.
		Transpack Red Tube	No known significant effects or critical hazards.
		Big Blue Control	No known significant effects or critical hazards.
		Genomic DNA	
		SCS-8 E. coli Strain	No known significant effects or critical hazards.
		G1250 E. coli Host Strain	No known significant effects or critical hazards.
Ingestion	:	Control Phage Solution	No known significant effects or critical hazards.
		Transpack packaging extract-Blue	No known significant effects or critical hazards.
		Transpack packaging extract-Red	No known significant effects or critical hazards.
		Control DNA	No known significant effects or critical hazards.
		SCS-8 Host Strain	No known significant effects or critical hazards.
		G1250 Host Strain	No known significant effects or critical hazards.
Skin contact	:	Control phage solution	No known significant effects or critical hazards.
		Transpack packaging extract-Blue	No known significant effects or critical hazards.
		Transpack packaging extract-Red	No known significant effects or critical hazards.
		Control DNA	No known significant effects or critical hazards.
		SCS-8 Host Strain	No known significant effects or critical hazards.
		G1250 Host Strain	No known significant effects or critical hazards.
Eye contact	:	Control phage solution	No known significant effects or critical hazards.
		Transpack Blue Tube	No known significant effects or critical hazards.
		Transpack Red Tube	No known significant effects or critical hazards.
		Big Blue Control	No known significant effects or critical hazards.
		Genomic DNA	
		SCS-8 E. coli Strain	No known significant effects or critical hazards.
	G1250 E. coli Host Strain	No known significant effects or critical hazards.	
	Control Phage Solution	No known significant effects or critical hazards.	

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	:	Transpack Blue Tube	No specific data.
		Transpack Red Tube	No specific data.
		Big Blue Control	No specific data.
		Genomic DNA	
		SCS-8 E. coli Strain	No specific data.
		G1250 E. coli Host Strain	No specific data.
Ingestion	:	Control Phage Solution	No specific data.
		Transpack Blue Tube	No specific data.
		Transpack Red Tube	No specific data.
		Big Blue Control	No specific data.
		Genomic DNA	
		SCS-8 E. coli Strain	No specific data.
Skin contact	:	G1250 E. coli Host Strain	No specific data.
		Transpack Blue Tube	No specific data.
		Transpack Red Tube	No specific data.
		Big Blue Control	No specific data.
		Genomic DNA	
		SCS-8 E. coli Strain	No specific data.
Eye contact	:	Control Phage Solution	No specific data.
		Transpack Blue Tube	No specific data.
		Transpack Red Tube	No specific data.
		Big Blue Control	No specific data.
		Genomic DNA	
		SCS-8 E. coli Strain	No specific data.
	G1250 E. coli Host Strain	No specific data.	
	Control Phage Solution	No specific data.	

SECTION 11: Toxicological information

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	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	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. May cause damage to organs through prolonged or repeated exposure if inhaled. No known significant effects or critical hazards.
Carcinogenicity	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	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	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	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.
Teratogenicity	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	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	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	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	: Transpack Blue Tube Transpack Red Tube Big Blue Control Genomic DNA SCS-8 E. coli Strain G1250 E. coli Host Strain Control Phage Solution	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.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
SCS-8 E. coli Strain Sodium chloride	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 402600 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
G1250 E. coli Host Strain Sodium chloride	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks
	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 402600 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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

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

Packaging

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

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

SECTION 14: Transport information

ADR/RID / IMDG / IATA : Not regulated.

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

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

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Transpack Blue Tube	Not applicable.
	Transpack Red Tube	Not applicable.
	Big Blue Control Genomic DNA	Not applicable.
	SCS-8 E. coli Strain	Not applicable.
	G1250 E. coli Host Strain	Not applicable.
	Control Phage Solution	Not applicable.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Date of issue/Date of revision : 23/05/2018

SECTION 15: Regulatory information

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	: Not determined.
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	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: <input checked="" type="checkbox"/> 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.

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

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

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

Classification	Justification
<input checked="" type="checkbox"/> 1250 E. coli Host Strain STOT RE 2, H373 (kidneys) (inhalation)	Expert judgment

Full text of abbreviated H statements

Lambda Select-cll Mutation Detection System for Big Blue Rodents, Part Number 720120

SECTION 16: Other information

SCS-8 E. coli Strain H319	Causes serious eye irritation.
G1250 E. coli Host Strain H319 H373 (inhalation)	Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure if inhaled.

[Full text of classifications \[CLP/GHS\]](#)

SCS-8 E. coli Strain Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
G1250 E. coli Host Strain Eye Irrit. 2, H319 STOT RE 2, H373 (inhalation)	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (inhalation) - Category 2

Date of issue/ Date of revision : 23/05/2018

Date of previous issue : 21/01/2016

Version : 2

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