

# SAFETY DATA SHEET



## pCMV-Tag5 Epitope Tagging Mammalian Expression Vectors, Part Number 211175

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

#### 1.1 Product identifier

<b>Product name</b>	:	pCMV-Tag5 Epitope Tagging Mammalian Expression Vectors, Part Number 211175	
<b>Part No. (Kit)</b>	:	211175	
<b>Part No.</b>	:	pCMV-Tag5A	211175-51
		Mammalian Expression Vector	
		pCMV-Tag5B	211175-52
		Mammalian Expression Vector	
		pCMV-Tag5C	211175-53
		Mammalian Expression Vector	
		pCMV-Tag5 Expression Control Plasmid	211175-54
		XL1-Blue E. coli Strain	200268-81

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

Identified uses	
Analytical reagent.	
pCMV-Tag5A Mammalian Expression Vector	0.02 ml (20 µg 1 µg/µl)
pCMV-Tag5B Mammalian Expression Vector	0.02 ml (20 µg 1 µg/µl)
pCMV-Tag5C Mammalian Expression Vector	0.02 ml (20 µg 1 µg/µl)
pCMV-Tag5 Expression Control Plasmid	0.02 ml (20 µg 1 µg/µl)
XL1-Blue E. coli Strain	0.5 ml

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

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

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

#### 1.4 Emergency telephone number

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

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

<b>Product definition</b>	:	pCMV-Tag5A	Mixture
		Mammalian Expression Vector	
		pCMV-Tag5B	Mixture
		Mammalian Expression Vector	
		pCMV-Tag5C	Mixture
		Mammalian Expression Vector	
		pCMV-Tag5 Expression	Mixture

**Date of issue/Date of revision** : 31/03/2017

**SECTION 2: Hazards identification**

Control Plasmid  
XL1-Blue E. coli Strain Mixture

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

Not classified.

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

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

**2.2 Label elements**

<b>Signal word</b>	:	pCMV-Tag5A Mammalian Expression Vector	No signal word.
		pCMV-Tag5B Mammalian Expression Vector	No signal word.
		pCMV-Tag5C Mammalian Expression Vector	No signal word.
		pCMV-Tag5 Expression Control Plasmid	No signal word.
		XL1-Blue E. coli Strain	No signal word.
<b>Hazard statements</b>	:	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
		XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b><u>Precautionary statements</u></b>			
<b>Prevention</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not applicable.
		pCMV-Tag5B Mammalian Expression Vector	Not applicable.
		pCMV-Tag5C Mammalian Expression Vector	Not applicable.
		pCMV-Tag5 Expression Control Plasmid	Not applicable.
		XL1-Blue E. coli Strain	Not applicable.
<b>Response</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not applicable.
		pCMV-Tag5B Mammalian Expression Vector	Not applicable.
		pCMV-Tag5C Mammalian Expression Vector	Not applicable.
		pCMV-Tag5 Expression Control Plasmid	Not applicable.
		XL1-Blue E. coli Strain	Not applicable.

**SECTION 2: Hazards identification**

<b>Storage</b>	:	<input type="checkbox"/> pCMV-Tag5A Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5B Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5C Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5 Expression Control Plasmid	Not applicable.
		<input type="checkbox"/> XL1-Blue E. coli Strain	Not applicable.
<b>Disposal</b>	:	<input type="checkbox"/> pCMV-Tag5A Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5B Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5C Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5 Expression Control Plasmid	Not applicable.
		<input type="checkbox"/> XL1-Blue E. coli Strain	Not applicable.
<b>Hazardous ingredients</b>	:	<input checked="" type="checkbox"/> XL1-Blue E. coli Strain	Not applicable.
<b>Supplemental label elements</b>	:	<input type="checkbox"/> pCMV-Tag5A Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5B Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5C Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5 Expression Control Plasmid	Not applicable.
		<input type="checkbox"/> XL1-Blue E. coli Strain	Safety data sheet available on request.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	:	<input type="checkbox"/> pCMV-Tag5A Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5B Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5C Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5 Expression Control Plasmid	Not applicable.
		<input type="checkbox"/> XL1-Blue E. coli Strain	Not applicable.
<b>Special packaging requirements</b>			
<b>Tactile warning of danger</b>	:	<input type="checkbox"/> pCMV-Tag5A Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5B Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5C Mammalian Expression Vector	Not applicable.
		<input type="checkbox"/> pCMV-Tag5 Expression Control Plasmid	Not applicable.
		<input type="checkbox"/> XL1-Blue E. coli Strain	Not applicable.

## SECTION 2: Hazards identification

### 2.3 Other hazards

<b>Other hazards which do not result in classification</b>	:	pCMV-Tag5A Mammalian Expression Vector	None known.
		pCMV-Tag5B Mammalian Expression Vector	None known.
		pCMV-Tag5C Mammalian Expression Vector	None known.
		pCMV-Tag5 Expression Control Plasmid	None known.
		XL1-Blue E. coli Strain	None known.

## SECTION 3: Composition/information on ingredients

<b>3.1 Substances</b>	:	pCMV-Tag5A Mammalian Expression Vector	Mixture
		pCMV-Tag5B Mammalian Expression Vector	Mixture
		pCMV-Tag5C Mammalian Expression Vector	Mixture
		pCMV-Tag5 Expression Control Plasmid	Mixture
		XL1-Blue E. coli Strain	Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
XL1-Blue E. coli Strain				
Glycerol	EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	≤3	Eye Irrit. 2, H319	[1]
<b>See Section 16 for the full text of the H statements declared above.</b>				

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

#### Type

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

<b>Eye contact</b>	:	pCMV-Tag5A Mammalian Expression Vector	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.
		pCMV-Tag5B Mammalian Expression Vector	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.
		pCMV-Tag5C Mammalian Expression Vector	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.
		pCMV-Tag5 Expression Control Plasmid	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**

	XL1-Blue 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.
<b>Inhalation</b>	: pCMV-Tag5A Mammalian Expression Vector	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pCMV-Tag5B Mammalian Expression Vector	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pCMV-Tag5C Mammalian Expression Vector	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	pCMV-Tag5 Expression Control Plasmid	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	XL1-Blue E. coli Strain	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
<b>Skin contact</b>	: pCMV-Tag5A Mammalian Expression Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pCMV-Tag5B Mammalian Expression Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pCMV-Tag5C Mammalian Expression Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	pCMV-Tag5 Expression Control Plasmid	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	XL1-Blue E. coli Strain	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: pCMV-Tag5A Mammalian Expression Vector	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.
	pCMV-Tag5B Mammalian Expression Vector	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.
	pCMV-Tag5C Mammalian Expression Vector	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.
	pCMV-Tag5 Expression Control Plasmid	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 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.

## SECTION 4: First aid measures

<b>Protection of first-aiders</b> :	pCMV-Tag5A Mammalian Expression Vector	No action shall be taken involving any personal risk or without suitable training.
	pCMV-Tag5B Mammalian Expression Vector	No action shall be taken involving any personal risk or without suitable training.
	pCMV-Tag5C Mammalian Expression Vector	No action shall be taken involving any personal risk or without suitable training.
	pCMV-Tag5 Expression Control Plasmid	No action shall be taken involving any personal risk or without suitable training.
	XL1-Blue E. coli Strain	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

<b>Eye contact</b> :	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Inhalation</b> :	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Skin contact</b> :	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Ingestion</b> :	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.

**SECTION 4: First aid measures**

Control Plasmid  
XL1-Blue E. coli Strain No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact** : pCMV-Tag5A Mammalian Expression Vector No specific data.

pCMV-Tag5B Mammalian Expression Vector No specific data.

pCMV-Tag5C Mammalian Expression Vector No specific data.

pCMV-Tag5 Expression Control Plasmid No specific data.

**Inhalation** : pCMV-Tag5A Mammalian Expression Vector No specific data.

pCMV-Tag5B Mammalian Expression Vector No specific data.

pCMV-Tag5C Mammalian Expression Vector No specific data.

pCMV-Tag5 Expression Control Plasmid No specific data.

**Skin contact** : pCMV-Tag5A Mammalian Expression Vector No specific data.

pCMV-Tag5B Mammalian Expression Vector No specific data.

pCMV-Tag5C Mammalian Expression Vector No specific data.

pCMV-Tag5 Expression Control Plasmid No specific data.

**Ingestion** : pCMV-Tag5A Mammalian Expression Vector No specific data.

pCMV-Tag5B Mammalian Expression Vector No specific data.

pCMV-Tag5C Mammalian Expression Vector No specific data.

pCMV-Tag5 Expression Control Plasmid No specific data.

XL1-Blue E. coli Strain No specific data.

pCMV-Tag5A Mammalian Expression Vector No specific data.

pCMV-Tag5B Mammalian Expression Vector No specific data.

pCMV-Tag5C Mammalian Expression Vector No specific data.

pCMV-Tag5 Expression Control Plasmid No specific data.

XL1-Blue E. coli Strain No specific data.

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

**Notes to physician** : pCMV-Tag5A Mammalian Expression Vector Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

pCMV-Tag5B Mammalian Expression Vector Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

pCMV-Tag5C Mammalian Expression Vector Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## SECTION 4: First aid measures

	pCMV-Tag5 Expression Control Plasmid	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	XL1-Blue E. coli Strain	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: pCMV-Tag5A Mammalian Expression Vector	No specific treatment.
	pCMV-Tag5B Mammalian Expression Vector	No specific treatment.
	pCMV-Tag5C Mammalian Expression Vector	No specific treatment.
	pCMV-Tag5 Expression Control Plasmid	No specific treatment.
	XL1-Blue E. coli Strain	No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: pCMV-Tag5A Mammalian Expression Vector	Use an extinguishing agent suitable for the surrounding fire.
	pCMV-Tag5B Mammalian Expression Vector	Use an extinguishing agent suitable for the surrounding fire.
	pCMV-Tag5C Mammalian Expression Vector	Use an extinguishing agent suitable for the surrounding fire.
	pCMV-Tag5 Expression Control Plasmid	Use an extinguishing agent suitable for the surrounding fire.
	XL1-Blue E. coli Strain	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: pCMV-Tag5A Mammalian Expression Vector	None known.
	pCMV-Tag5B Mammalian Expression Vector	None known.
	pCMV-Tag5C Mammalian Expression Vector	None known.
	pCMV-Tag5 Expression Control Plasmid	None known.
	XL1-Blue E. coli Strain	None known.

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

<b>Hazards from the substance or mixture</b>	: pCMV-Tag5A Mammalian Expression Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
	pCMV-Tag5B Mammalian Expression Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
	pCMV-Tag5C Mammalian Expression Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
	pCMV-Tag5 Expression Control Plasmid	In a fire or if heated, a pressure increase will occur and the container may burst.
	XL1-Blue E. coli Strain	In a fire or if heated, a pressure increase will occur and the container may burst.



## SECTION 5: Firefighting measures

<b>Hazardous combustion products</b>	: pCMV-Tag5A Mammalian Expression Vector	No specific data.
	pCMV-Tag5B Mammalian Expression Vector	No specific data.
	pCMV-Tag5C Mammalian Expression Vector	No specific data.
	pCMV-Tag5 Expression Control Plasmid XL1-Blue E. coli Strain	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
<b>5.3 Advice for firefighters</b>		
<b>Special precautions for fire-fighters</b>	: pCMV-Tag5A Mammalian Expression Vector	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.
	pCMV-Tag5B Mammalian Expression Vector	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.
	pCMV-Tag5C Mammalian Expression Vector	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.
	pCMV-Tag5 Expression Control Plasmid XL1-Blue 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.
<b>Special protective equipment for fire-fighters</b>	: pCMV-Tag5A Mammalian Expression Vector	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.
	pCMV-Tag5B Mammalian Expression Vector	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.
	pCMV-Tag5C Mammalian Expression Vector	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.
	pCMV-Tag5 Expression Control Plasmid	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	XL1-Blue E. coli Strain	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

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

#### For non-emergency personnel

: pCMV-Tag5A Mammalian Expression Vector	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
pCMV-Tag5B Mammalian Expression Vector	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
pCMV-Tag5C Mammalian Expression Vector	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
pCMV-Tag5 Expression Control Plasmid	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
XL1-Blue E. coli Strain	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

#### For emergency responders

: pCMV-Tag5A Mammalian Expression Vector	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".
pCMV-Tag5B Mammalian Expression Vector	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".
pCMV-Tag5C Mammalian Expression Vector	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".
pCMV-Tag5 Expression Control Plasmid	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
XL1-Blue 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".

### 6.2 Environmental precautions

: pCMV-Tag5A Mammalian Expression Vector	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
pCMV-Tag5B Mammalian Expression Vector	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
pCMV-Tag5C Mammalian Expression Vector	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
pCMV-Tag5 Expression Control Plasmid	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

## SECTION 6: Accidental release measures

XL1-Blue 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).
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### 6.3 Methods and material for containment and cleaning up

<b>Methods for cleaning up</b> : pCMV-Tag5A Mammalian Expression Vector	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.
pCMV-Tag5B Mammalian Expression Vector	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.
pCMV-Tag5C Mammalian Expression Vector	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.
pCMV-Tag5 Expression Control Plasmid	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 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.

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

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b> : pCMV-Tag5A Mammalian Expression Vector	Put on appropriate personal protective equipment (see Section 8).
pCMV-Tag5B Mammalian Expression Vector	Put on appropriate personal protective equipment (see Section 8).
pCMV-Tag5C Mammalian Expression Vector	Put on appropriate personal protective equipment (see Section 8).
pCMV-Tag5 Expression Control Plasmid	Put on appropriate personal protective equipment (see Section 8).
XL1-Blue E. coli Strain	Put on appropriate personal protective equipment (see Section 8).
<b>Advice on general occupational hygiene</b> : pCMV-Tag5A Mammalian Expression Vector	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.
pCMV-Tag5B Mammalian Expression Vector	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also

## SECTION 7: Handling and storage

pCMV-Tag5C Mammalian Expression Vector	Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
pCMV-Tag5 Expression Control Plasmid	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 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.

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

#### Storage

: pCMV-Tag5A Mammalian Expression Vector	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.
pCMV-Tag5B Mammalian Expression Vector	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.
pCMV-Tag5C Mammalian Expression Vector	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.
pCMV-Tag5 Expression Control Plasmid	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
XL1-Blue E. coli Strain	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to

## SECTION 7: Handling and storage

prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

<b>Recommendations</b>	: pCMV-Tag5A Mammalian Expression Vector	Industrial applications, Professional applications.
	pCMV-Tag5B Mammalian Expression Vector	Industrial applications, Professional applications.
	pCMV-Tag5C Mammalian Expression Vector	Industrial applications, Professional applications.
	pCMV-Tag5 Expression Control Plasmid	Industrial applications, Professional applications.
	XL1-Blue E. coli Strain	Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: pCMV-Tag5A Mammalian Expression Vector	Not applicable.
	pCMV-Tag5B Mammalian Expression Vector	Not applicable.
	pCMV-Tag5C Mammalian Expression Vector	Not applicable.
	pCMV-Tag5 Expression Control Plasmid	Not applicable.
	XL1-Blue E. coli Strain	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"/> XL1-Blue E. coli Strain Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist

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

#### DNELs/DMELs

No DNELs/DMELs available.

#### PNECs

No PNECs available

### 8.2 Exposure controls

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

## SECTION 8: Exposure controls/personal protection

### 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** :  pCMV-Tag5A Liquid.  
Mammalian Expression Vector
- pCMV-Tag5B Liquid.  
Mammalian Expression Vector
- pCMV-Tag5C Liquid.  
Mammalian Expression Vector
- pCMV-Tag5 Liquid.  
Expression Control Plasmid
- XL1-Blue E. coli Strain Liquid.
- Colour** :  pCMV-Tag5A Not available.  
Mammalian Expression Vector
- pCMV-Tag5B Not available.  
Mammalian Expression Vector
- pCMV-Tag5C Not available.  
Mammalian Expression Vector
- pCMV-Tag5 Not available.  
Expression Control Plasmid
- XL1-Blue E. coli Strain Not available.

**SECTION 9: Physical and chemical properties**

<b>Odour</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.
		pCMV-Tag5 Expression Control Plasmid	Not available.
		XL1-Blue E. coli Strain	Not available.
<b>Odour threshold</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.
		pCMV-Tag5 Expression Control Plasmid	Not available.
		XL1-Blue E. coli Strain	Not available.
<b>pH</b>	:	pCMV-Tag5A Mammalian Expression Vector	7.5
		pCMV-Tag5B Mammalian Expression Vector	7.5
		pCMV-Tag5C Mammalian Expression Vector	7.5
		pCMV-Tag5 Expression Control Plasmid	7.5
		XL1-Blue E. coli Strain	7.5
<b>Melting point/freezing point</b>	:	pCMV-Tag5A Mammalian Expression Vector	0°C
		pCMV-Tag5B Mammalian Expression Vector	0°C
		pCMV-Tag5C Mammalian Expression Vector	0°C
		pCMV-Tag5 Expression Control Plasmid	0°C
		XL1-Blue E. coli Strain	Not available.
<b>Initial boiling point and boiling range</b>	:	pCMV-Tag5A Mammalian Expression Vector	100°C
		pCMV-Tag5B Mammalian Expression Vector	100°C
		pCMV-Tag5C Mammalian Expression Vector	100°C
		pCMV-Tag5 Expression Control	100°C

**SECTION 9: Physical and chemical properties**

		Plasmid	
		XL1-Blue E. coli Strain	Not available.
<b>Flash point</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.
		pCMV-Tag5 Expression Control Plasmid	Not available.
		XL1-Blue E. coli Strain	Not available.
<b>Evaporation rate</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.
		pCMV-Tag5 Expression Control Plasmid	Not available.
		XL1-Blue E. coli Strain	Not available.
<b>Flammability (solid, gas)</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not applicable.
		pCMV-Tag5B Mammalian Expression Vector	Not applicable.
		pCMV-Tag5C Mammalian Expression Vector	Not applicable.
		pCMV-Tag5 Expression Control Plasmid	Not applicable.
		XL1-Blue E. coli Strain	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.
		pCMV-Tag5 Expression Control Plasmid	Not available.
		XL1-Blue E. coli Strain	Not available.
<b>Vapour pressure</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.



**SECTION 9: Physical and chemical properties**

		pCMV-Tag5 Expression Control Plasmid XL1-Blue E. coli Strain	Not available. Not available.
<b>Vapour density</b>	:	pCMV-Tag5A Mammalian Expression Vector pCMV-Tag5B Mammalian Expression Vector pCMV-Tag5C Mammalian Expression Vector pCMV-Tag5 Expression Control Plasmid XL1-Blue E. coli Strain	Not available. Not available. Not available. Not available. Not available. Not available.
<b>Relative density</b>	:	pCMV-Tag5A Mammalian Expression Vector pCMV-Tag5B Mammalian Expression Vector pCMV-Tag5C Mammalian Expression Vector pCMV-Tag5 Expression Control Plasmid XL1-Blue E. coli Strain	Not available. Not available. Not available. Not available. Not available. Not available.
<b>Solubility(ies)</b>	:	pCMV-Tag5A Mammalian Expression Vector pCMV-Tag5B Mammalian Expression Vector pCMV-Tag5C Mammalian Expression Vector pCMV-Tag5 Expression Control Plasmid XL1-Blue E. coli Strain	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	:	pCMV-Tag5A Mammalian Expression Vector pCMV-Tag5B Mammalian Expression Vector pCMV-Tag5C Mammalian Expression Vector pCMV-Tag5 Expression Control Plasmid XL1-Blue E. coli Strain	Not available. Not available. Not available. Not available. Not available.

**SECTION 9: Physical and chemical properties**

<b>Auto-ignition temperature</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.
		pCMV-Tag5 Expression Control Plasmid	Not available.
		XL1-Blue E. coli Strain	Not available.
<b>Decomposition temperature</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.
		pCMV-Tag5 Expression Control Plasmid	Not available.
		XL1-Blue E. coli Strain	Not available.
<b>Viscosity</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.
		pCMV-Tag5 Expression Control Plasmid	Not available.
		XL1-Blue E. coli Strain	Not available.
<b>Explosive properties</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.
		pCMV-Tag5 Expression Control Plasmid	Not available.
		XL1-Blue E. coli Strain	Not available.
<b>Oxidising properties</b>	:	pCMV-Tag5A Mammalian Expression Vector	Not available.
		pCMV-Tag5B Mammalian Expression Vector	Not available.
		pCMV-Tag5C Mammalian Expression Vector	Not available.
		pCMV-Tag5 Expression Control	Not available.

## SECTION 9: Physical and chemical properties

Plasmid  
XL1-Blue E. coli Strain Not available.

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: pCMV-Tag5A Mammalian Expression Vector pCMV-Tag5B Mammalian Expression Vector pCMV-Tag5C Mammalian Expression Vector pCMV-Tag5 Expression Control Plasmid XL1-Blue E. coli Strain	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: pCMV-Tag5A Mammalian Expression Vector pCMV-Tag5B Mammalian Expression Vector pCMV-Tag5C Mammalian Expression Vector pCMV-Tag5 Expression Control Plasmid XL1-Blue E. coli Strain	The product is stable. The product is stable. The product is stable. The product is stable. The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: pCMV-Tag5A Mammalian Expression Vector pCMV-Tag5B Mammalian Expression Vector pCMV-Tag5C Mammalian Expression Vector pCMV-Tag5 Expression Control Plasmid XL1-Blue E. coli Strain	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: pCMV-Tag5A Mammalian Expression Vector pCMV-Tag5B Mammalian Expression Vector pCMV-Tag5C Mammalian Expression Vector pCMV-Tag5 Expression Control Plasmid XL1-Blue E. coli Strain	No specific data. No specific data. No specific data. No specific data. No specific data.

## SECTION 10: Stability and reactivity

<b>10.5 Incompatible materials</b>	:	pCMV-Tag5A Mammalian Expression Vector	May react or be incompatible with oxidising materials.
		pCMV-Tag5B Mammalian Expression Vector	May react or be incompatible with oxidising materials.
		pCMV-Tag5C Mammalian Expression Vector	May react or be incompatible with oxidising materials.
		pCMV-Tag5 Expression Control Plasmid	May react or be incompatible with oxidising materials.
		XL1-Blue E. coli Strain	May react or be incompatible with oxidising materials.
<b>10.6 Hazardous decomposition products</b>	:	pCMV-Tag5A Mammalian Expression Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		pCMV-Tag5B Mammalian Expression Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		pCMV-Tag5C Mammalian Expression Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		pCMV-Tag5 Expression Control Plasmid	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		XL1-Blue E. coli Strain	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> XL1-Blue E. coli Strain Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

#### Acute toxicity estimates

Not available.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<input checked="" type="checkbox"/> XL1-Blue 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	-

#### Sensitiser

**Conclusion/Summary** : Not available.

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

Not available.

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

Not available.

#### Aspiration hazard

Not available.

**SECTION 11: Toxicological information**

<b>Information on likely routes of exposure</b>	: pCMV-Tag5A Mammalian Expression Vector	Not available.
	pCMV-Tag5B Mammalian Expression Vector	Not available.
	pCMV-Tag5C Mammalian Expression Vector	Not available.
	pCMV-Tag5 Expression Control Plasmid	Not available.
	XL1-Blue E. coli Strain	Routes of entry anticipated: Oral, Dermal, Inhalation.

**Potential acute health effects**

<b>Inhalation</b>	: pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Ingestion</b>	: pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Skin contact</b>	: pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Eye contact</b>	: pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.

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

**SECTION 11: Toxicological information**

<b>Inhalation</b>	:	pCMV-Tag5A Mammalian Expression Vector	No specific data.
		pCMV-Tag5B Mammalian Expression Vector	No specific data.
		pCMV-Tag5C Mammalian Expression Vector	No specific data.
		pCMV-Tag5 Expression Control Plasmid	No specific data.
		XL1-Blue E. coli Strain	No specific data.
<b>Ingestion</b>	:	pCMV-Tag5A Mammalian Expression Vector	No specific data.
		pCMV-Tag5B Mammalian Expression Vector	No specific data.
		pCMV-Tag5C Mammalian Expression Vector	No specific data.
		pCMV-Tag5 Expression Control Plasmid	No specific data.
		XL1-Blue E. coli Strain	No specific data.
<b>Skin contact</b>	:	pCMV-Tag5A Mammalian Expression Vector	No specific data.
		pCMV-Tag5B Mammalian Expression Vector	No specific data.
		pCMV-Tag5C Mammalian Expression Vector	No specific data.
		pCMV-Tag5 Expression Control Plasmid	No specific data.
		XL1-Blue E. coli Strain	No specific data.
<b>Eye contact</b>	:	pCMV-Tag5A Mammalian Expression Vector	No specific data.
		pCMV-Tag5B Mammalian Expression Vector	No specific data.
		pCMV-Tag5C Mammalian Expression Vector	No specific data.
		pCMV-Tag5 Expression Control Plasmid	No specific data.
		XL1-Blue E. coli Strain	No specific data.

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

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

**SECTION 11: Toxicological information**

<b>General</b>	:	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
		XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	:	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
		XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Mutagenicity</b>	:	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
		XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Teratogenicity</b>	:	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
		XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Developmental effects</b>	:	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
		XL1-Blue E. coli Strain	No known significant effects or critical hazards.

## SECTION 11: Toxicological information

<b>Fertility effects</b>	:	pCMV-Tag5A Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5B Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5C Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag5 Expression Control Plasmid	No known significant effects or critical hazards.
		XL1-Blue E. coli Strain	No known significant effects or critical hazards.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
XL1-Blue E. coli Strain Sodium chloride	Acute EC50 2430000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 28.85 mg/dm3 Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1.56 g/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/l Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks

### 12.2 Persistence and degradability

Not available.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

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

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

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



## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

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

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

#### Packaging

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

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

## SECTION 14: Transport information

### Regulatory information

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

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

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

## SECTION 15: Regulatory information

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

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

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

##### Annex XIV

None of the components are listed.

##### Substances of very high concern

None of the components are listed.

<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	<b>pCMV-Tag5A Mammalian Expression Vector</b>	Not applicable.
	<b>pCMV-Tag5B Mammalian Expression Vector</b>	Not applicable.
	<b>pCMV-Tag5C Mammalian Expression Vector</b>	Not applicable.
	<b>pCMV-Tag5 Expression Control Plasmid</b>	Not applicable.
	<b>XL1-Blue E. coli Strain</b>	Not applicable.

#### Other EU regulations

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

#### Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

#### Seveso Directive

## SECTION 15: Regulatory information

This product is not controlled under the Seveso Directive.

### 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.

### International lists

#### National inventory

<b>Australia</b>	: All components are listed or exempted.
<b>Canada</b>	: Not determined.
<b>China</b>	: All components are listed or exempted.
<b>Japan</b>	: <input checked="" type="checkbox"/> <b>Japan inventory (ENCS)</b> : Not determined. <b>Japan inventory (ISHL)</b> : All components are listed or exempted.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are listed or exempted.

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

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

<b>Abbreviations and acronyms</b>	: 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
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### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

### Full text of abbreviated H statements

<input checked="" type="checkbox"/> <b>L1-Blue E. coli Strain</b> H319	Causes serious eye irritation.
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### Full text of classifications [CLP/GHS]

<input checked="" type="checkbox"/> <b>L1-Blue E. coli Strain</b> Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
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**Date of issue/Date of revision** : 31/03/2017

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## SECTION 16: Other information

**Date of issue/ Date of revision** : 31/03/2017

**Date of previous issue** : 07/01/2016.

**Version** : 2

### Notice to reader

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