

pCMV-Tag4 Epitope Tagging Mammalian Expression Vectors, Part Number 211174

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

1.1 Product identifier		
Product name	: pCMV-Tag4 Epitope Tagging Mammalian Expression Vectors, Part Number 211174	
Part no. (chemical kit)	: 211174	
Part no.	: pCMV-Tag4A Mammalian Expression Vector	211174-51
	: pCMV-Tag4B Mammalian Expression Vector	211174-52
	: pCMV-Tag4C Mammalian Expression Vector	211174-53
	: pCMV-Tag4 Expression Control Plasmid	211174-54
	: 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-Tag4A Mammalian Expression Vector	20 µl (20 µg 1 µg/µl)
	pCMV-Tag4B Mammalian Expression Vector	20 µl (20 µg 1 µg/µl)
	pCMV-Tag4C Mammalian Expression Vector	20 µl (20 µg 1 µg/µl)
	pCMV-Tag4 Expression Control Plasmid	20 µl (20 µg 1 µg/µl)
	XL1-Blue E. coli Strain	500 µl
Uses advised against	: None known.	

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH		
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	: pCMV-Tag4A Mammalian Expression Vector	Mixture
	: pCMV-Tag4B Mammalian Expression Vector	Mixture
	: pCMV-Tag4C Mammalian Expression Vector	Mixture
	: pCMV-Tag4 Expression Control Plasmid	Mixture

**SECTION 2: Hazards identification**

XL1-Blue E. coli Strain      Mixture

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

Not classified.

pCMV-Tag4A Mammalian Expression Vector	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
pCMV-Tag4B Mammalian Expression Vector	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
pCMV-Tag4C Mammalian Expression Vector	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
pCMV-Tag4 Expression Control Plasmid	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
XL1-Blue E. coli Strain	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

**Ingredients of unknown toxicity** : XL1-Blue E. coli Strain      Percentage of the mixture consisting of ingredient(s) of unknown acute 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**

<b>Signal word</b>	:	pCMV-Tag4A Mammalian Expression Vector	No signal word.
		pCMV-Tag4B Mammalian Expression Vector	No signal word.
		pCMV-Tag4C Mammalian Expression Vector	No signal word.
		pCMV-Tag4 Expression Control Plasmid	No signal word.
		XL1-Blue E. coli Strain	No signal word.
<b>Hazard statements</b>	:	pCMV-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
		pCMV-Tag4 Expression Control Plasmid	No known significant effects or critical hazards.
		XL1-Blue E. coli Strain	No known significant effects or critical hazards.

**Precautionary statements**

<b>Prevention</b>	:	pCMV-Tag4A Mammalian Expression Vector	Not applicable.
		pCMV-Tag4B Mammalian Expression Vector	Not applicable.
		pCMV-Tag4C Mammalian Expression Vector	Not applicable.
		pCMV-Tag4 Expression Control Plasmid	Not applicable.
		XL1-Blue E. coli Strain	Not applicable.

**SECTION 2: Hazards identification**

<b>Response</b>	:	pCMV-Tag4A Mammalian Expression Vector	Not applicable.
		pCMV-Tag4B Mammalian Expression Vector	Not applicable.
		pCMV-Tag4C Mammalian Expression Vector	Not applicable.
		pCMV-Tag4 Expression Control Plasmid	Not applicable.
		XL1-Blue E. coli Strain	Not applicable.
<b>Storage</b>	:	pCMV-Tag4A Mammalian Expression Vector	Not applicable.
		pCMV-Tag4B Mammalian Expression Vector	Not applicable.
		pCMV-Tag4C Mammalian Expression Vector	Not applicable.
		pCMV-Tag4 Expression Control Plasmid	Not applicable.
		XL1-Blue E. coli Strain	Not applicable.
<b>Disposal</b>	:	pCMV-Tag4A Mammalian Expression Vector	Not applicable.
		pCMV-Tag4B Mammalian Expression Vector	Not applicable.
		pCMV-Tag4C Mammalian Expression Vector	Not applicable.
		pCMV-Tag4 Expression Control Plasmid	Not applicable.
		XL1-Blue E. coli Strain	Not applicable.
<b>Supplemental label elements</b>	:	pCMV-Tag4A Mammalian Expression Vector	Not applicable.
		pCMV-Tag4B Mammalian Expression Vector	Not applicable.
		pCMV-Tag4C Mammalian Expression Vector	Not applicable.
		pCMV-Tag4 Expression Control Plasmid	Not applicable.
		XL1-Blue E. coli Strain	Not applicable.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	:	pCMV-Tag4A Mammalian Expression Vector	Not applicable.
		pCMV-Tag4B Mammalian Expression Vector	Not applicable.
		pCMV-Tag4C Mammalian Expression Vector	Not applicable.
		pCMV-Tag4 Expression Control Plasmid	Not applicable.
		XL1-Blue E. coli Strain	Not applicable.

**Special packaging requirements**

SECTION 2: Hazards identification

Tactile warning of danger	pCMV-Tag4A Mammalian Expression Vector	Not applicable.
	pCMV-Tag4B Mammalian Expression Vector	Not applicable.
	pCMV-Tag4C Mammalian Expression Vector	Not applicable.
	pCMV-Tag4 Expression Control Plasmid	Not applicable.
	XL1-Blue E. coli Strain	Not applicable.
2.3 Other hazards		
Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	pCMV-Tag4A Mammalian Expression Vector	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	pCMV-Tag4B Mammalian Expression Vector	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	pCMV-Tag4C Mammalian Expression Vector	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	pCMV-Tag4 Expression Control Plasmid	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	XL1-Blue E. coli Strain	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	pCMV-Tag4A Mammalian Expression Vector	None known.
	pCMV-Tag4B Mammalian Expression Vector	None known.
	pCMV-Tag4C Mammalian Expression Vector	None known.
	pCMV-Tag4 Expression Control Plasmid	None known.
	XL1-Blue E. coli Strain	None known.

SECTION 3: Composition/information on ingredients

3.1 Substances	pCMV-Tag4A Mammalian Expression Vector	Mixture
	pCMV-Tag4B Mammalian Expression Vector	Mixture
	pCMV-Tag4C Mammalian Expression Vector	Mixture
	pCMV-Tag4 Expression Control Plasmid	Mixture
	XL1-Blue E. coli Strain	Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
XL1-Blue E. coli Strain glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	-	[1]

SECTION 3: Composition/information on ingredients

			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, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

XL1-Blue E. coli Strain

[1] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	:	pCMV-Tag4A 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-Tag4B 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-Tag4C 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-Tag4 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.
	:	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.
Inhalation	:	pCMV-Tag4A 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-Tag4B 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-Tag4C 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-Tag4 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.
Skin contact	:	pCMV-Tag4A Mammalian Expression Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	:	pCMV-Tag4B Mammalian Expression Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	:	pCMV-Tag4C Mammalian Expression Vector	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	:	pCMV-Tag4 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.

**SECTION 4: First aid measures**

<b>Ingestion</b>	: pCMV-Tag4A Mammalian Expression Vector	Wash out mouth with water. 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-Tag4B Mammalian Expression Vector	Wash out mouth with water. 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-Tag4C Mammalian Expression Vector	Wash out mouth with water. 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-Tag4 Expression Control Plasmid	Wash out mouth with water. 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. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	: pCMV-Tag4A Mammalian Expression Vector	No action shall be taken involving any personal risk or without suitable training.
	pCMV-Tag4B Mammalian Expression Vector	No action shall be taken involving any personal risk or without suitable training.
	pCMV-Tag4C Mammalian Expression Vector	No action shall be taken involving any personal risk or without suitable training.
	pCMV-Tag4 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-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4 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-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.

**SECTION 4: First aid measures**

<b>Skin contact</b>	pCMV-Tag4 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.
	: pCMV-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
<b>Ingestion</b>	pCMV-Tag4 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.
	: pCMV-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4 Expression Control Plasmid	No known significant effects or critical hazards.
	XL1-Blue E. coli Strain	No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

<b>Eye contact</b>	: pCMV-Tag4A Mammalian Expression Vector	No specific data.
	pCMV-Tag4B Mammalian Expression Vector	No specific data.
	pCMV-Tag4C Mammalian Expression Vector	No specific data.
	pCMV-Tag4 Expression Control Plasmid	No specific data.
	XL1-Blue E. coli Strain	No specific data.
<b>Inhalation</b>	: pCMV-Tag4A Mammalian Expression Vector	No specific data.
	pCMV-Tag4B Mammalian Expression Vector	No specific data.
	pCMV-Tag4C Mammalian Expression Vector	No specific data.
	pCMV-Tag4 Expression Control Plasmid	No specific data.
	XL1-Blue E. coli Strain	No specific data.
<b>Skin contact</b>	: pCMV-Tag4A Mammalian Expression Vector	No specific data.
	pCMV-Tag4B Mammalian Expression Vector	No specific data.
	pCMV-Tag4C Mammalian Expression Vector	No specific data.
	pCMV-Tag4 Expression Control Plasmid	No specific data.
	XL1-Blue E. coli Strain	No specific data.



**SECTION 4: First aid measures**

<b>Ingestion</b>	Control Plasmid	
	XL1-Blue E. coli Strain	No specific data.
	: pCMV-Tag4A	No specific data.
	Mammalian Expression Vector	
	pCMV-Tag4B	No specific data.
	Mammalian Expression Vector	
	pCMV-Tag4C	No specific data.
	Mammalian Expression Vector	
	pCMV-Tag4 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**

<b>Notes to physician</b>	: pCMV-Tag4A	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Mammalian Expression Vector	
	pCMV-Tag4B	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Mammalian Expression Vector	
	pCMV-Tag4C	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Mammalian Expression Vector	
	pCMV-Tag4 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-Tag4A	No specific treatment.
	Mammalian Expression Vector	
	pCMV-Tag4B	No specific treatment.
	Mammalian Expression Vector	
	pCMV-Tag4C	No specific treatment.
	Mammalian Expression Vector	
	pCMV-Tag4 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-Tag4A	Use an extinguishing agent suitable for the surrounding fire.
	Mammalian Expression Vector	
	pCMV-Tag4B	Use an extinguishing agent suitable for the surrounding fire.
	Mammalian Expression Vector	
	pCMV-Tag4C	Use an extinguishing agent suitable for the surrounding fire.
	Mammalian Expression Vector	
	pCMV-Tag4 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.



**SECTION 5: Firefighting measures**

<b>Unsuitable extinguishing media</b>	: pCMV-Tag4A Mammalian Expression Vector	None known.
	: pCMV-Tag4B Mammalian Expression Vector	None known.
	: pCMV-Tag4C Mammalian Expression Vector	None known.
	: pCMV-Tag4 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-Tag4A Mammalian Expression Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
	: pCMV-Tag4B Mammalian Expression Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
	: pCMV-Tag4C Mammalian Expression Vector	In a fire or if heated, a pressure increase will occur and the container may burst.
	: pCMV-Tag4 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.

<b>Hazardous combustion products</b>	: pCMV-Tag4A Mammalian Expression Vector	No specific data.
	: pCMV-Tag4B Mammalian Expression Vector	No specific data.
	: pCMV-Tag4C Mammalian Expression Vector	No specific data.
	: pCMV-Tag4 Expression Control Plasmid	No specific data.
	: XL1-Blue E. coli Strain	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides

**5.3 Advice for firefighters**

<b>Special precautions for fire-fighters</b>	: pCMV-Tag4A 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-Tag4B 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-Tag4C 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-Tag4 Expression Control Plasmid	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	: XL1-Blue 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.

**SECTION 5: Firefighting measures****Special protective equipment for fire-fighters**

: pCMV-Tag4A 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-Tag4B 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-Tag4C 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-Tag4 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-Tag4A 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 spilt material. Put on appropriate personal protective equipment.
pCMV-Tag4B 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 spilt material. Put on appropriate personal protective equipment.
pCMV-Tag4C 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 spilt material. Put on appropriate personal protective equipment.
pCMV-Tag4 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 spilt 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 spilt material. Put on appropriate personal protective equipment.

**SECTION 6: Accidental release measures****For emergency responders**

pCMV-Tag4A 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-Tag4B 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-Tag4C 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-Tag4 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-Tag4A Mammalian Expression Vector	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).
pCMV-Tag4B Mammalian Expression Vector	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).
pCMV-Tag4C Mammalian Expression Vector	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).
pCMV-Tag4 Expression Control Plasmid	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
XL1-Blue 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).

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

pCMV-Tag4A 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-Tag4B 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-Tag4C 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-Tag4 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.

SECTION 6: Accidental release measures

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

Protective measures	: pCMV-Tag4A Mammalian Expression Vector	Put on appropriate personal protective equipment (see Section 8).
	pCMV-Tag4B Mammalian Expression Vector	Put on appropriate personal protective equipment (see Section 8).
	pCMV-Tag4C Mammalian Expression Vector	Put on appropriate personal protective equipment (see Section 8).
	pCMV-Tag4 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).
Advice on general occupational hygiene	: pCMV-Tag4A 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-Tag4B 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-Tag4C 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-Tag4 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

SECTION 7: Handling and storage

Storage	: pCMV-Tag4A 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. See Section 10 for incompatible materials before handling or use.
	pCMV-Tag4B 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. See Section 10 for incompatible materials before handling or use.
	pCMV-Tag4C 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. See Section 10 for incompatible materials before handling or use.
	pCMV-Tag4 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. See Section 10 for incompatible materials before handling or use.
	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 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.

7.3 Specific end use(s)

Recommendations	: pCMV-Tag4A Mammalian Expression Vector	Industrial applications, Professional applications.
	pCMV-Tag4B Mammalian Expression Vector	Industrial applications, Professional applications.
	pCMV-Tag4C Mammalian Expression Vector	Industrial applications, Professional applications.
	pCMV-Tag4 Expression	Industrial applications, Professional applications.



**SECTION 7: Handling and storage**

<b>Industrial sector specific solutions</b>	Control Plasmid	
	XL1-Blue E. coli Strain	Industrial applications, Professional applications.
	pCMV-Tag4A Mammalian Expression Vector	Not available.
	pCMV-Tag4B Mammalian Expression Vector	Not available.
	pCMV-Tag4C Mammalian Expression Vector	Not available.
	pCMV-Tag4 Expression Control Plasmid	Not available.
	XL1-Blue E. coli Strain	Not available.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational exposure limits**

Product/ingredient name	Exposure limit values
XL1-Blue E. coli Strain Glycerol	<b>NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)</b> OELV-8hr: 10 mg/m <sup>3</sup> 8 hours. Form: mist

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

No DNELs/DMELs available.

**PNECs**

No PNECs available

**8.2 Exposure controls**

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

**Individual protection measures**

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

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

**Skin protection**

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

<b>Hand protection</b>	: 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.
<b>Body protection</b>	: 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.
<b>Other skin protection</b>	: 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.
<b>Respiratory protection</b>	: 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.
<b>Environmental exposure controls</b>	: 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**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

**9.1 Information on basic physical and chemical properties****Appearance**

<b>Physical state</b>	: pCMV-Tag4A Mammalian Expression Vector	Liquid.
	pCMV-Tag4B Mammalian Expression Vector	Liquid.
	pCMV-Tag4C Mammalian Expression Vector	Liquid.
	pCMV-Tag4 Expression Control Plasmid	Liquid.
	XL1-Blue E. coli Strain	Liquid.
<b>Colour</b>	: pCMV-Tag4A Mammalian Expression Vector	Not available.
	pCMV-Tag4B Mammalian Expression Vector	Not available.
	pCMV-Tag4C Mammalian Expression Vector	Not available.
	pCMV-Tag4 Expression Control Plasmid	Not available.
	XL1-Blue E. coli Strain	Not available.
<b>Odour</b>	: pCMV-Tag4A Mammalian Expression Vector	Not available.
	pCMV-Tag4B Mammalian Expression Vector	Not available.
	pCMV-Tag4C Mammalian Expression Vector	Not available.
	pCMV-Tag4 Expression Control Plasmid	Not available.
	XL1-Blue E. coli Strain	Not available.



**SECTION 9: Physical and chemical properties**

<b>Odour threshold</b>	: pCMV-Tag4A Mammalian Expression Vector	Not available.
	pCMV-Tag4B Mammalian Expression Vector	Not available.
	pCMV-Tag4C Mammalian Expression Vector	Not available.
	pCMV-Tag4 Expression Control Plasmid	Not available.
	XL1-Blue E. coli Strain	Not available.
<b>Melting point/freezing point</b>	: pCMV-Tag4A Mammalian Expression Vector	0°C
	pCMV-Tag4B Mammalian Expression Vector	0°C
	pCMV-Tag4C Mammalian Expression Vector	0°C
	pCMV-Tag4 Expression Control Plasmid	0°C
	XL1-Blue E. coli Strain	Not available.
<b>Initial boiling point and boiling range</b>	: pCMV-Tag4A Mammalian Expression Vector	100°C
	pCMV-Tag4B Mammalian Expression Vector	100°C
	pCMV-Tag4C Mammalian Expression Vector	100°C
	pCMV-Tag4 Expression Control Plasmid	100°C
	XL1-Blue E. coli Strain	Not available.
<b>Flammability</b>	: pCMV-Tag4A Mammalian Expression Vector	Not applicable.
	pCMV-Tag4B Mammalian Expression Vector	Not applicable.
	pCMV-Tag4C Mammalian Expression Vector	Not applicable.
	pCMV-Tag4 Expression Control Plasmid	Not applicable.
	XL1-Blue E. coli Strain	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: pCMV-Tag4A Mammalian Expression Vector	Not available.
	pCMV-Tag4B Mammalian Expression Vector	Not available.
	pCMV-Tag4C Mammalian Expression Vector	Not available.
	pCMV-Tag4 Expression Control Plasmid	Not available.
	XL1-Blue E. coli Strain	Not available.
<b>Flash point</b>	:	

**SECTION 9: Physical and chemical properties****Auto-ignition temperature**

Ingredient name	Closed cup		Open cup	
	°C	Method	°C	Method
<b>XL1-Blue E. coli Strain</b>				
glycerol	-	-	177	-

Ingredient name	°C	Method
<b>XL1-Blue E. coli Strain</b>		
glycerol	370	-

**Decomposition temperature**

pCMV-Tag4A Mammalian Expression Vector	Not available.
pCMV-Tag4B Mammalian Expression Vector	Not available.
pCMV-Tag4C Mammalian Expression Vector	Not available.
pCMV-Tag4 Expression Control Plasmid	Not available.
XL1-Blue E. coli Strain	Not available.

**pH**

pCMV-Tag4A Mammalian Expression Vector	7.5
pCMV-Tag4B Mammalian Expression Vector	7.5
pCMV-Tag4C Mammalian Expression Vector	7.5
pCMV-Tag4 Expression Control Plasmid	7.5
XL1-Blue E. coli Strain	7.5

**Viscosity**

pCMV-Tag4A Mammalian Expression Vector	Not available.
pCMV-Tag4B Mammalian Expression Vector	Not available.
pCMV-Tag4C Mammalian Expression Vector	Not available.
pCMV-Tag4 Expression Control Plasmid	Not available.
XL1-Blue E. coli Strain	Not available.

**Solubility(ies)**

Media	Result
<b>pCMV-Tag4A Mammalian Expression Vector</b> water	Soluble
<b>pCMV-Tag4B Mammalian Expression Vector</b> water	Soluble
<b>pCMV-Tag4C Mammalian Expression Vector</b> water	Soluble
<b>pCMV-Tag4 Expression Control Plasmid</b> water	Soluble
<b>XL1-Blue E. coli Strain</b> water	Soluble

SECTION 9: Physical and chemical properties

Partition coefficient: n-octanol/water	pCMV-Tag4A Mammalian Expression Vector	Not applicable.					
	pCMV-Tag4B Mammalian Expression Vector	Not applicable.					
	pCMV-Tag4C Mammalian Expression Vector	Not applicable.					
	pCMV-Tag4 Expression Control Plasmid	Not applicable.					
	XL1-Blue E. coli Strain	Not applicable.					
Vapour pressure		Vapour Pressure at 20°C			Vapour pressure at 50°C		
	Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
	pCMV-Tag4A Mammalian Expression Vector						
	water	17.5	2.3	-	92.258	12.3	-
	pCMV-Tag4B Mammalian Expression Vector						
	water	17.5	2.3	-	92.258	12.3	-
	pCMV-Tag4C Mammalian Expression Vector						
	water	17.5	2.3	-	92.258	12.3	-
	pCMV-Tag4 Expression Control Plasmid						
	water	17.5	2.3	-	92.258	12.3	-
	XL1-Blue E. coli Strain						
	water	17.5	2.3	-	92.258	12.3	-
	glycerol	0.000075	0.00001	-	0.0025	0.00033	-
Evaporation rate	pCMV-Tag4A Mammalian Expression Vector	Not available.					
	pCMV-Tag4B Mammalian Expression Vector	Not available.					
	pCMV-Tag4C Mammalian Expression Vector	Not available.					
	pCMV-Tag4 Expression Control Plasmid	Not available.					
	XL1-Blue E. coli Strain	Not available.					

**SECTION 9: Physical and chemical properties**

<b>Relative density</b>	: pCMV-Tag4A Mammalian Expression Vector	Not available.
	pCMV-Tag4B Mammalian Expression Vector	Not available.
	pCMV-Tag4C Mammalian Expression Vector	Not available.
	pCMV-Tag4 Expression Control Plasmid	Not available.
<b>Vapour density</b>	XL1-Blue E. coli Strain	Not available.
	: pCMV-Tag4A Mammalian Expression Vector	Not available.
	pCMV-Tag4B Mammalian Expression Vector	Not available.
	pCMV-Tag4C Mammalian Expression Vector	Not available.
<b>Explosive properties</b>	pCMV-Tag4 Expression Control Plasmid	Not available.
	XL1-Blue E. coli Strain	Not available.
	: pCMV-Tag4A Mammalian Expression Vector	Not available.
	pCMV-Tag4B Mammalian Expression Vector	Not available.
<b>Oxidising properties</b>	pCMV-Tag4C Mammalian Expression Vector	Not available.
	pCMV-Tag4 Expression Control Plasmid	Not available.
	XL1-Blue E. coli Strain	Not available.
	: pCMV-Tag4A Mammalian Expression Vector	Not available.
<b>Particle characteristics</b>	pCMV-Tag4B Mammalian Expression Vector	Not available.
	pCMV-Tag4C Mammalian Expression Vector	Not available.
	pCMV-Tag4 Expression Control Plasmid	Not available.
	XL1-Blue E. coli Strain	Not available.
<b>Median particle size</b>	: pCMV-Tag4A Mammalian Expression Vector	Not applicable.
	pCMV-Tag4B Mammalian Expression Vector	Not applicable.
	pCMV-Tag4C Mammalian Expression Vector	Not applicable.
	pCMV-Tag4 Expression Control Plasmid	Not applicable.
	XL1-Blue E. coli Strain	Not applicable.

**SECTION 9: Physical and chemical properties****9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	: pCMV-Tag4A Mammalian Expression Vector	No specific test data related to reactivity available for this product or its ingredients.
	: pCMV-Tag4B Mammalian Expression Vector	No specific test data related to reactivity available for this product or its ingredients.
	: pCMV-Tag4C Mammalian Expression Vector	No specific test data related to reactivity available for this product or its ingredients.
	: pCMV-Tag4 Expression Control Plasmid	No specific test data related to reactivity available for this product or its ingredients.
	: XL1-Blue E. coli Strain	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: pCMV-Tag4A Mammalian Expression Vector	The product is stable.
	: pCMV-Tag4B Mammalian Expression Vector	The product is stable.
	: pCMV-Tag4C Mammalian Expression Vector	The product is stable.
	: pCMV-Tag4 Expression Control Plasmid	The product is stable.
	: XL1-Blue E. coli Strain	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: pCMV-Tag4A Mammalian Expression Vector	Under normal conditions of storage and use, hazardous reactions will not occur.
	: pCMV-Tag4B Mammalian Expression Vector	Under normal conditions of storage and use, hazardous reactions will not occur.
	: pCMV-Tag4C Mammalian Expression Vector	Under normal conditions of storage and use, hazardous reactions will not occur.
	: pCMV-Tag4 Expression Control Plasmid	Under normal conditions of storage and use, hazardous reactions will not occur.
	: XL1-Blue E. coli Strain	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: pCMV-Tag4A Mammalian Expression Vector	No specific data.
	: pCMV-Tag4B Mammalian Expression Vector	No specific data.
	: pCMV-Tag4C Mammalian Expression Vector	No specific data.
	: pCMV-Tag4 Expression Control Plasmid	No specific data.
	: XL1-Blue E. coli Strain	No specific data.

**SECTION 10: Stability and reactivity**

<b>10.5 Incompatible materials</b>	: pCMV-Tag4A Mammalian Expression Vector	May react or be incompatible with oxidising materials.
	: pCMV-Tag4B Mammalian Expression Vector	May react or be incompatible with oxidising materials.
	: pCMV-Tag4C Mammalian Expression Vector	May react or be incompatible with oxidising materials.
	: pCMV-Tag4 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-Tag4A Mammalian Expression Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	: pCMV-Tag4B Mammalian Expression Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	: pCMV-Tag4C Mammalian Expression Vector	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	: pCMV-Tag4 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

Not available.

Acute toxicity estimates

N/A

Irritation/Corrosion**Conclusion/Summary** : Not available.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)

Not available.

Aspiration hazard

Not available.

**SECTION 11: Toxicological information**

<b>Information on likely routes of exposure</b>	: pCMV-Tag4A Mammalian Expression Vector	Not available.
	pCMV-Tag4B Mammalian Expression Vector	Not available.
	pCMV-Tag4C Mammalian Expression Vector	Not available.
	pCMV-Tag4 Expression Control Plasmid	Not available.
	XL1-Blue E. coli Strain	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

**Potential acute health effects**

<b>Inhalation</b>	: pCMV-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4 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-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4 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-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4 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-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
	pCMV-Tag4 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-Tag4A Mammalian Expression Vector	No specific data.
	: pCMV-Tag4B Mammalian Expression Vector	No specific data.
	: pCMV-Tag4C Mammalian Expression Vector	No specific data.
	: pCMV-Tag4 Expression Control Plasmid	No specific data.
	: XL1-Blue E. coli Strain	No specific data.
<b>Ingestion</b>	: pCMV-Tag4A Mammalian Expression Vector	No specific data.
	: pCMV-Tag4B Mammalian Expression Vector	No specific data.
	: pCMV-Tag4C Mammalian Expression Vector	No specific data.
	: pCMV-Tag4 Expression Control Plasmid	No specific data.
	: XL1-Blue E. coli Strain	No specific data.
<b>Skin contact</b>	: pCMV-Tag4A Mammalian Expression Vector	No specific data.
	: pCMV-Tag4B Mammalian Expression Vector	No specific data.
	: pCMV-Tag4C Mammalian Expression Vector	No specific data.
	: pCMV-Tag4 Expression Control Plasmid	No specific data.
	: XL1-Blue E. coli Strain	No specific data.
<b>Eye contact</b>	: pCMV-Tag4A Mammalian Expression Vector	No specific data.
	: pCMV-Tag4B Mammalian Expression Vector	No specific data.
	: pCMV-Tag4C Mammalian Expression Vector	No specific data.
	: pCMV-Tag4 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>Conclusion/Summary</b>	: Not available.	
<b>General</b>	: pCMV-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4 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-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4 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-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4 Expression Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue E. coli Strain	No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: pCMV-Tag4A Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4B Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4C Mammalian Expression Vector	No known significant effects or critical hazards.
	: pCMV-Tag4 Expression Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue E. coli Strain	No known significant effects or critical hazards.

**11.2 Information on other hazards****11.2.1 Endocrine disrupting properties**

Not available.

**11.2.2 Other information**

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

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

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 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
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-

**SECTION 14: Transport information**

14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

**Additional information**

**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 IMO instruments** : 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**

No listed substance

<b>Label</b>	:	pCMV-Tag4A Mammalian Expression Vector	Not applicable.
		pCMV-Tag4B Mammalian Expression Vector	Not applicable.
		pCMV-Tag4C Mammalian Expression Vector	Not applicable.
		pCMV-Tag4 Expression Control Plasmid	Not applicable.
		XL1-Blue E. coli Strain	Not applicable.

**Other EU regulations****Ozone depleting substances (1005/2009/EU)**

Not listed.

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

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Seveso Directive**

This product is not controlled under the Seveso Directive.


**International regulations****Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

SECTION 15: Regulatory information

<a href="#">Montreal Protocol</a>	Not listed.
<a href="#">Stockholm Convention on Persistent Organic Pollutants</a>	Not listed.
<a href="#">Rotterdam Convention on Prior Informed Consent (PIC)</a>	Not listed.
<a href="#">UNECE Aarhus Protocol on POPs and Heavy Metals</a>	Not listed.
<a href="#">Inventory list</a>	
<a href="#">Australia</a>	: Not determined.
<a href="#">Canada</a>	: Not determined.
<a href="#">China</a>	: All components are listed or exempted.
<a href="#">Eurasian Economic Union</a>	: <b>Russian Federation inventory</b> : All components are listed or exempted.
<a href="#">Japan</a>	: <b>Japan inventory (CSCL)</b> : All components are listed or exempted. <b>Japan inventory (ISHL)</b> : All components are listed or exempted.
<a href="#">New Zealand</a>	: All components are listed or exempted.
<a href="#">Philippines</a>	: Not determined.
<a href="#">Republic of Korea</a>	: All components are listed or exempted.
<a href="#">Taiwan</a>	: All components are listed or exempted.
<a href="#">Thailand</a>	: Not determined.
<a href="#">Turkey</a>	: Not determined.
<a href="#">United States</a>	: All components are active or exempted.
<a href="#">Viet Nam</a>	: All components are listed or exempted.
<b>15.2 Chemical safety assessment</b>	: 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] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative

Classification	Justification
Not classified.	

<a href="#">Full text of abbreviated H statements</a>
Not applicable.
<a href="#">Full text of classifications [CLP/GHS]</a>
Not applicable.

SECTION 16: Other information

Date of issue/ Date of revision : 08/01/2024

Date of previous issue : No previous validation

Version : 1

Notice to reader

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