

# SAFETY DATA SHEET

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

## Section 1. Identification

### 1.1 Product identifier

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

**Validation date** : 11/2/2020

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

<b>Material uses</b>	: 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

**Supplier/Manufacturer** : Agilent Technologies, Inc.  
5301 Stevens Creek Blvd  
Santa Clara, CA 95051, USA  
800-227-9770

### 1.4 Emergency telephone number

**In case of emergency** : CHEMTREC®: 1-800-424-9300

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

<b>OSHA/HCS status</b>	: pCMV-Tag5A Mammalian Expression Vector	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	pCMV-Tag5B Mammalian Expression Vector	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	pCMV-Tag5C Mammalian Expression Vector	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

## Section 2. Hazards identification

pCMV-Tag5 Expression Control Plasmid

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

XL1-Blue E. coli Strain

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

#### **XL1-Blue E. coli Strain**

H319

EYE IRRITATION - Category 2A

### 2.2 GHS label elements

#### **Hazard pictograms**

: XL1-Blue E. coli Strain



#### **Signal word**

: 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.

#### **Hazard statements**

: XL1-Blue E. coli Strain Warning  
 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 H319 - Causes serious eye irritation.

### Precautionary statements

#### **Prevention**

: 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 P280 - Wear eye or face protection.

#### **Response**

: 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 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

## Section 2. Hazards identification

contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical advice or attention.

**Storage** : 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.

**Disposal** : 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.

**Supplemental label elements** : 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.

### 2.3 Other hazards

**Hazards not otherwise classified** : 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

**Substance/mixture** : 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

## Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
XL1-Blue E. coli Strain		
Glycerol	≥10 - ≤25	56-81-5
Sodium chloride	≤3	7647-14-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

#### Eye contact

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.
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. Continue to rinse for at least 10 minutes. Get medical attention.

#### Inhalation

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. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a

## Section 4. First aid measures

### Skin contact

- : pCMV-Tag5A Mammalian Expression Vector  
collar, tie, belt or waistband.  
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. Wash clothing before reuse. Clean shoes thoroughly before reuse.

### Ingestion

- : 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 dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person.

## Section 4. First aid measures

If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</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 known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Causes serious eye irritation.
<b>Inhalation</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 known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Skin contact</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 known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</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 known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</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. Adverse symptoms may include the following: pain or irritation watering redness
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## Section 4. First aid measures

<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>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>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.

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

<b>Notes to physician</b>	:	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.
		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 4. First aid measures

<b>Protection of first-aiders</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 action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
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See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</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	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</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	None known. None known. None known. None known. None known.

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

<b>Specific hazards arising from the chemical</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	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	: pCMV-Tag5A Mammalian Expression Vector pCMV-Tag5B Mammalian Expression Vector pCMV-Tag5C Mammalian Expression Vector pCMV-Tag5 Expression Control Plasmid	No specific data. No specific data. No specific data. No specific data.

## Section 5. Fire-fighting measures

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

#### Special protective actions for fire-fighters

: 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

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.

#### Special protective equipment for fire-fighters

: 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.

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.

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.

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.

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.

## Section 6. Accidental release measures

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

## Section 6. Accidental release measures

<b>For non-emergency personnel</b>	:	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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	:	pCMV-Tag5A Mammalian Expression Vector	If specialized 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 specialized 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 specialized 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 specialized 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 specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

## Section 6. Accidental release measures

### 6.2 Environmental precautions

: 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).
XL1-Blue E. coli Strain	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).

### 6.3 Methods and materials for containment and cleaning up

#### Methods for cleaning up

: 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.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	<ul style="list-style-type: none"> <li>: pCMV-Tag5A Mammalian Expression Vector</li> <li>pCMV-Tag5B Mammalian Expression Vector</li> <li>pCMV-Tag5C Mammalian Expression Vector</li> <li>pCMV-Tag5 Expression Control Plasmid</li> <li>XL1-Blue E. coli Strain</li> </ul>	<p>Put on appropriate personal protective equipment (see Section 8).</p> <p>Put on appropriate personal protective equipment (see Section 8).</p> <p>Put on appropriate personal protective equipment (see Section 8).</p> <p>Put on appropriate personal protective equipment (see Section 8).</p> <p>Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.</p>
<b>Advice on general occupational hygiene</b>	<ul style="list-style-type: none"> <li>: pCMV-Tag5A Mammalian Expression Vector</li>   <li>pCMV-Tag5B Mammalian Expression Vector</li>   <li>pCMV-Tag5C Mammalian Expression Vector</li>   <li>pCMV-Tag5 Expression Control Plasmid</li>   <li>XL1-Blue E. coli Strain</li> </ul>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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

## Section 7. Handling and 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
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 unlabeled 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### [7.3 Specific end use\(s\)](#)

## Section 7. Handling and storage

<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 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.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<input checked="" type="checkbox"/> XL1-Blue E. coli Strain Glycerol          Sodium chloride	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>OSHA PEL (United States, 5/2018).</b> TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust None.

### 8.2 Exposure controls

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

#### Individual protection measures

<b>Hygiene measures</b>	:	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.
<b>Eye/face protection</b>	:	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

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	:	pCMV-Tag5A Mammalian Expression Vector	Liquid.
		pCMV-Tag5B Mammalian Expression Vector	Liquid.
		pCMV-Tag5C Mammalian Expression Vector	Liquid.
		pCMV-Tag5 Expression Control Plasmid	Liquid.
		XL1-Blue E. coli Strain	Liquid.
<b>Color</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>Odor</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>Odor 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>	:		

## Section 9. Physical and chemical properties

		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</b>	:	pCMV-Tag5A Mammalian Expression Vector	0°C (32°F)
		pCMV-Tag5B Mammalian Expression Vector	0°C (32°F)
		pCMV-Tag5C Mammalian Expression Vector	0°C (32°F)
		pCMV-Tag5 Expression Control Plasmid	0°C (32°F)
		XL1-Blue E. coli Strain	Not available.
<b>Boiling point</b>	:	pCMV-Tag5A Mammalian Expression Vector	100°C (212°F)
		pCMV-Tag5B Mammalian Expression Vector	100°C (212°F)
		pCMV-Tag5C Mammalian Expression Vector	100°C (212°F)
		pCMV-Tag5 Expression Control Plasmid	100°C (212°F)
		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.

## Section 9. Physical and chemical properties

<b>Lower and upper explosive (flammable) 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>Vapor pressure</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>Vapor density</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>Relative density</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>Solubility</b>	:	pCMV-Tag5A Mammalian Expression Vector	Easily soluble in the following materials: cold water and hot water.
		pCMV-Tag5B Mammalian Expression Vector	Easily soluble in the following materials: cold water and hot water.
		pCMV-Tag5C Mammalian Expression Vector	Easily soluble in the following materials: cold water and hot water.
		pCMV-Tag5 Expression Control Plasmid	Easily soluble in the following materials: cold water and hot water.
		XL1-Blue E. coli Strain	Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</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.

## 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.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	:	pCMV-Tag5A Mammalian Expression Vector	No specific test data related to reactivity available for this product or its ingredients.
		pCMV-Tag5B Mammalian Expression Vector	No specific test data related to reactivity available for this product or its ingredients.
		pCMV-Tag5C Mammalian Expression Vector	No specific test data related to reactivity available for this product or its ingredients.
		pCMV-Tag5 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-Tag5A Mammalian Expression Vector	The product is stable.
		pCMV-Tag5B Mammalian Expression Vector	The product is stable.
		pCMV-Tag5C Mammalian Expression Vector	The product is stable.
		pCMV-Tag5 Expression Control Plasmid	The product is stable.
		XL1-Blue E. coli Strain	The product is stable.

## Section 10. Stability and reactivity

<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.
<b>10.5 Incompatible materials</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	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials.
<b>10.6 Hazardous decomposition products</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 decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>XL1-Blue E. coli Strain</b>				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

## Section 11. Toxicological information

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
XL1-Blue E. coli Strain Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant Skin - Mild irritant	Rabbit Rabbit	- -	10 mg 24 hours 500 mg	- -

### Sensitization

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.

<b>Information on the 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>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	Causes serious eye irritation.

## Section 11. Toxicological information

<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.

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

<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	Adverse symptoms may include the following: pain or irritation watering redness
<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>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.

## Section 11. Toxicological information

	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.

### Delayed and immediate effects and also 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

<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>Reproductive toxicity</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	No known significant effects or critical hazards.

## Section 11. Toxicological information

Plasmid  
XL1-Blue E. coli Strain

No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
<b>XL1-Blue E. coli Strain</b> XL1-Blue E. coli Strain	300000	N/A	N/A	N/A	N/A
Glycerol	12600	N/A	N/A	N/A	N/A
Sodium chloride	3000	N/A	N/A	N/A	N/A

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>XL1-Blue E. coli Strain</b> Glycerol Sodium chloride	Acute LC50 54000 mg/l Fresh water Acute EC50 4.74 g/L Fresh water  Acute EC50 519.6 mg/l Fresh water Acute IC50 6.87 g/L Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water  Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Fish - Oncorhynchus mykiss Algae - Chlamydomonas reinhardtii Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling) Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 96 hours  48 hours 96 hours 96 hours 3 weeks  96 hours 21 days 8 weeks

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>XL1-Blue E. coli Strain</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>XL1-Blue E. coli Strain</b> Glycerol	-1.76	-	low

### 12.4 Mobility in soil

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

## Section 12. Ecological information

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

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

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

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

**DOT / TDG / Mexico / IMDG / IATA** : Not regulated.

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

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

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

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
Clean Water Act (CWA) 311: Edetic acid

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

## Section 15. Regulatory information

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** :

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	EYE IRRITATION - Category 2A

#### Composition/information on ingredients

Name	%	Classification
<b>XL1-Blue E. coli Strain</b>		
Glycerol	≥10 - ≤25	EYE IRRITATION - Category 2B
Sodium chloride	≤3	EYE IRRITATION - Category 2A

### State regulations

**Massachusetts** : The following components are listed: GLYCERINE MIST

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL

**Pennsylvania** : The following components are listed: 1,2,3-PROPANETRIOL

### California Prop. 65

**⚠ WARNING:** This product can expose you to Tetracycline, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Ingredient name	No significant risk level	Maximum acceptable dosage level
<b>XL1-Blue E. coli Strain</b> Tetracycline	-	-

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

## Section 15. Regulatory information

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

<b>Australia</b>	: All components are listed or exempted.
<b>Canada</b>	: Not determined.
<b>China</b>	: All components are listed or exempted.
<b>Europe</b>	: All components are listed or exempted.
<b>Japan</b>	: <b>Japan inventory (ENCS)</b> : All components are listed or exempted. <b>Japan inventory (ISHL)</b> : All components are listed or exempted.
<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>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: <input checked="" type="checkbox"/> All components are active or exempted.
<b>Viet Nam</b>	: Not determined.

## Section 16. Other information

### History

<b>Date of issue</b>	: 11/02/2020
<b>Date of previous issue</b>	: 09/11/2018
<b>Version</b>	: 6

### Key to abbreviations

: ATE = Acute Toxicity Estimate
: BCF = Bioconcentration Factor
: GHS = Globally Harmonized System of Classification and Labelling of Chemicals
: IATA = International Air Transport Association
: IBC = Intermediate Bulk Container
: IMDG = International Maritime Dangerous Goods
: LogPow = logarithm of the octanol/water partition coefficient
: MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
: N/A = Not available
: UN = United Nations

### Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> <b>L1-Blue E. coli Strain</b> EYE IRRITATION - Category 2A	Calculation method

Indicates information that has changed from previously issued version.

### Notice to reader

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