

SAFETY DATA SHEET

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

Section 1. Identification

Product identifier : 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

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

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

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

☒ **XL1-Blue E. coli Strain**
H320 EYE IRRITATION - Category 2B

GHS label elements

Signal word :

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	Warning

Hazard statements :

<input checked="" type="checkbox"/> 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	H320 - Causes eye irritation.

Precautionary statements

Section 2. Hazard identification

Prevention	: 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.
Response	: 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	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Storage	: 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.
Disposal	: 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.
Supplemental label elements	: 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.
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

Substance/mixture	: 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

Ingredient name	Synonyms	% (w/w)	CAS number
XL1-Blue E. coli Strain			
Glycerol	Glycerol	≥10 - ≤30	56-81-5

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

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

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

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact	: 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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
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

Section 4. First-aid measures

Skin contact

: pCMV-Tag4A Mammalian Expression Vector

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 collar, tie, belt or waistband.

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. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: 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. Remove dentures if any. 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. 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.

Section 4. First-aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	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	Causes eye irritation.
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Inhalation	:	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.
	:		
Skin contact	:	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.
	:		
Ingestion	:	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

Eye contact	:	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	Adverse symptoms may include the following: irritation watering redness
	:		

Section 4. First-aid measures

Inhalation	:	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.
Skin contact	:	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.
Ingestion	:	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.

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

Notes to physician	:	pCMV-Tag4A Mammalian Expression Vector	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pCMV-Tag4B Mammalian Expression Vector	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		pCMV-Tag4C Mammalian Expression Vector	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		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.
Specific treatments	:	pCMV-Tag4A Mammalian Expression Vector	No specific treatment.
		pCMV-Tag4B Mammalian Expression Vector	No specific treatment.
		pCMV-Tag4C Mammalian Expression Vector	No specific treatment.
		pCMV-Tag4 Expression Control Plasmid	No specific treatment.
		XL1-Blue E. coli Strain	No specific treatment.

Section 4. First-aid measures

Protection of first-aiders	: pCMV-Tag4A Mammalian Expression Vector pCMV-Tag4B Mammalian Expression Vector pCMV-Tag4C Mammalian Expression Vector pCMV-Tag4 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

Extinguishing media

Suitable extinguishing media	: pCMV-Tag4A Mammalian Expression Vector pCMV-Tag4B Mammalian Expression Vector pCMV-Tag4C Mammalian Expression Vector pCMV-Tag4 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.
Unsuitable extinguishing media	: pCMV-Tag4A Mammalian Expression Vector pCMV-Tag4B Mammalian Expression Vector pCMV-Tag4C Mammalian Expression Vector pCMV-Tag4 Expression Control Plasmid XL1-Blue E. coli Strain	None known. None known. None known. None known. None known.

Specific hazards arising from the chemical

: 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.

Hazardous thermal decomposition products

: 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

Section 5. Fire-fighting measures

carbon monoxide
halogenated compounds
metal oxide/oxides

Special protective actions for fire-fighters	: 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.
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.
	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.
	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.
	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.
	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

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 spilled 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 spilled material. Put on appropriate personal protective equipment.

Section 6. Accidental release measures

	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 spilled 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 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.
For emergency responders :	pCMV-Tag4A 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-Tag4B 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-Tag4C 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-Tag4 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".
Environmental precautions :	pCMV-Tag4A 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-Tag4B 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-Tag4C 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-Tag4 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

Section 6. Accidental release measures

XL1-Blue E. coli Strain

caused environmental pollution (sewers, waterways, soil or air).

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).

Methods and materials 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.

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

Precautions for safe handling

Protective measures

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

Put on appropriate personal protective equipment (see Section 8).

Put on appropriate personal protective equipment (see Section 8).

Put on appropriate personal protective equipment (see Section 8).

Put on appropriate personal protective equipment (see Section 8).

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.

Section 7. Handling and storage

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.

Conditions for safe storage, including any incompatibilities

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

pCMV-Tag4C Mammalian

Store in accordance with local regulations. Store in

Section 7. Handling and storage

Expression Vector

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-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 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.

Section 8. Exposure controls/personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
<p> XL1-Blue E. coli Strain Glycerol</p>	<p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours. Form: Mist CA Quebec Provincial (Canada, 6/2022). TWA EV: 10 mg/m³ 8 hours. Form: mist CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. Form: mist TWA: 10 mg/m³ 8 hours. Form: mist CA British Columbia Provincial (Canada, 6/2022). TWA: 3 mg/m³ 8 hours. Form: respirable mist TWA: 10 mg/m³ 8 hours. Form: total mist</p>

[Biological exposure indices](#)

No exposure indices known.

Section 8. Exposure controls/personal protection

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

Individual protection measures

- Hygiene measures** : Handle as biohazard material (Biosafety level 1). Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

- Physical state** :
- | | |
|--|---------|
| 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. |
- Color** :
- | | |
|--|----------------|
| pCMV-Tag4A Mammalian Expression Vector | Not available. |
| pCMV-Tag4B Mammalian Expression Vector | Not available. |
| pCMV-Tag4C Mammalian Expression Vector | Not available. |
| pCMV-Tag4 Expression | Not available. |

Section 9. Physical and chemical properties and safety characteristics

		Control Plasmid	
		XL1-Blue E. coli Strain	Not available.
Odor	:	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.
Odor threshold	:	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
Melting point/freezing point	:	pCMV-Tag4A Mammalian Expression Vector	0°C (32°F)
		pCMV-Tag4B Mammalian Expression Vector	0°C (32°F)
		pCMV-Tag4C Mammalian Expression Vector	0°C (32°F)
		pCMV-Tag4 Expression Control Plasmid	0°C (32°F)
		XL1-Blue E. coli Strain	Not available.
Boiling point, initial boiling point, and boiling range	:	pCMV-Tag4A Mammalian Expression Vector	100°C (212°F)
		pCMV-Tag4B Mammalian Expression Vector	100°C (212°F)
		pCMV-Tag4C Mammalian Expression Vector	100°C (212°F)
		pCMV-Tag4 Expression Control Plasmid	100°C (212°F)
		XL1-Blue E. coli Strain	Not available.
Flash point	:		

Section 9. Physical and chemical properties and safety characteristics

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.

Flammability : 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.

Lower and upper explosion limit/flammability limit : 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.

Vapor pressure	Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
		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	-

Section 9. Physical and chemical properties and safety characteristics

		XL1-Blue E. coli Strain						
		water	17.5	2.3	-	92.258	12.3	-
		Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
Relative vapor density	:	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.					
Relative density	:	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			
		pCMV-Tag4A Mammalian Expression Vector			Soluble			
		water						
		pCMV-Tag4B Mammalian Expression Vector			Soluble			
		water						
		pCMV-Tag4C Mammalian Expression Vector			Soluble			
		water						
		pCMV-Tag4 Expression Control Plasmid			Soluble			
		water						
		XL1-Blue E. coli Strain			Soluble			
		water						
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.					
Auto-ignition temperature	:	Ingredient name		°C		°F		Method
		XL1-Blue E. coli Strain						
		Glycerol		370		698		-

Section 9. Physical and chemical properties and safety characteristics

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.

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.

Particle characteristics

Median particle size	: 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 10. Stability and reactivity

Reactivity	: 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.

Chemical stability	: 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.

Section 10. Stability and reactivity

Possibility of hazardous reactions	: 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.
Conditions to avoid	: 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.
Incompatible materials	: pCMV-Tag4A Mammalian Expression Vector	May react or be incompatible with oxidizing materials.
	pCMV-Tag4B Mammalian Expression Vector	May react or be incompatible with oxidizing materials.
	pCMV-Tag4C Mammalian Expression Vector	May react or be incompatible with oxidizing materials.
	pCMV-Tag4 Expression Control Plasmid	May react or be incompatible with oxidizing materials.
	XL1-Blue E. coli Strain	May react or be incompatible with oxidizing materials.
Hazardous decomposition products	: 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

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
XL1-Blue E. coli Strain Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

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	-

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.

Information on the likely routes of exposure	: 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

Eye contact	: 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	Causes eye irritation.
Inhalation	: 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.

Section 11. Toxicological information

Skin contact	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.
Ingestion	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.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:  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	Adverse symptoms may include the following: irritation watering redness
Inhalation	: 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.
Skin contact	: 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.
Ingestion	: 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	No specific data.

Section 11. Toxicological information

Control Plasmid

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

General	:	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.
Carcinogenicity	:	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.
Mutagenicity	:	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.
Reproductive toxicity	:	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.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
XL1-Blue E. coli Strain XL1-Blue E. coli Strain Glycerol	300000.0 12600	N/A N/A	N/A N/A	N/A N/A	N/A N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
XL1-Blue E. coli Strain Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours

Persistence and degradability

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

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
XL1-Blue E. coli Strain Glycerol	-1.76	-	Low

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or 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.

Section 14. Transport information

TDG / 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

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

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.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Canada : Not determined.

United States : All components are active or exempted.

Section 16. Other information

History

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


Date of previous issue : 11/10/2020

Version : 7

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
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

Section 16. Other information

Classification	Justification
 XL1-Blue E. coli Strain EYE IRRITATION - Category 2B	Calculation method

 Indicates information that has changed from previously issued version.

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