

SAFETY DATA SHEET



pCMV-Tag1 Epitope Tagging Mammalian Expression Vectors, Part Number 211170

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

1.1 Product identifier

Product name : pCMV-Tag1 Epitope Tagging Mammalian Expression Vectors, Part Number 211170
Part No. (Kit) : 211170
Part No. : pCMV-Tag 1 211170-51
Mammalian Expression Vector
pCMV-Tag 1 Control 211170-52
Vector
XL1-Blue E. coli Strain 200268-81

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

| Identified uses | |
|--|-----------------------|
| Analytical reagent. | |
| pCMV-Tag 1 Mammalian Expression Vector | 20 µl (20 µg 1 µg/µl) |
| pCMV-Tag 1 Control Vector | 10 µl (10 µg 1 µg/µl) |
| XL1-Blue E. coli Strain | 500 µl |

1.3 Details of the supplier of the safety data sheet

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

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

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : pCMV-Tag 1 Mixture
Mammalian Expression Vector
pCMV-Tag 1 Control Mixture
Vector
XL1-Blue E. coli Strain Mixture

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

Not classified.

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

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

2.2 Label elements

Date of issue/Date of revision : 29/03/2017

SECTION 2: Hazards identification

| | | |
|---|--|---|
| Signal word | : pCMV-Tag 1 Mammalian Expression Vector | No signal word. |
| | pCMV-Tag 1 Control Vector | No signal word. |
| | XL1-Blue E. coli Strain | No signal word. |
| Hazard statements | : pCMV-Tag 1 Mammalian Expression Vector | No known significant effects or critical hazards. |
| | pCMV-Tag 1 Control Vector | No known significant effects or critical hazards. |
| | XL1-Blue E. coli Strain | No known significant effects or critical hazards. |
| <u>Precautionary statements</u> | | |
| Prevention | : pCMV-Tag 1 Mammalian Expression Vector | Not applicable. |
| | pCMV-Tag 1 Control Vector | Not applicable. |
| | XL1-Blue E. coli Strain | Not applicable. |
| Response | : pCMV-Tag 1 Mammalian Expression Vector | Not applicable. |
| | pCMV-Tag 1 Control Vector | Not applicable. |
| | XL1-Blue E. coli Strain | Not applicable. |
| Storage | : pCMV-Tag 1 Mammalian Expression Vector | Not applicable. |
| | pCMV-Tag 1 Control Vector | Not applicable. |
| | XL1-Blue E. coli Strain | Not applicable. |
| Disposal | : pCMV-Tag 1 Mammalian Expression Vector | Not applicable. |
| | pCMV-Tag 1 Control Vector | Not applicable. |
| | XL1-Blue E. coli Strain | Not applicable. |
| Hazardous ingredients | : XL1-Blue E. coli Strain | Not applicable. |
| Supplemental label elements | : pCMV-Tag 1 Mammalian Expression Vector | Not applicable. |
| | pCMV-Tag 1 Control Vector | Not applicable. |
| | XL1-Blue E. coli Strain | Safety data sheet available on request. |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | : pCMV-Tag 1 Mammalian Expression Vector | Not applicable. |
| | pCMV-Tag 1 Control Vector | Not applicable. |
| | XL1-Blue E. coli Strain | Not applicable. |
| <u>Special packaging requirements</u> | | |
| Tactile warning of danger | : pCMV-Tag 1 Mammalian Expression Vector | Not applicable. |
| | pCMV-Tag 1 Control Vector | Not applicable. |
| | XL1-Blue E. coli Strain | Not applicable. |

2.3 Other hazards

SECTION 2: Hazards identification

Other hazards which do not result in classification :

| | |
|--|-------------|
| pCMV-Tag 1 Mammalian Expression Vector | None known. |
| pCMV-Tag 1 Control Vector | None known. |
| XL1-Blue E. coli Strain | None known. |

SECTION 3: Composition/information on ingredients

3.1 Substances :

| | |
|--|---------|
| pCMV-Tag 1 Mammalian Expression Vector | Mixture |
| pCMV-Tag 1 Control Vector | Mixture |
| XL1-Blue E. coli Strain | Mixture |

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

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

Type

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

SECTION 4: First aid measures

4.1 Description of first aid measures

| | | | |
|---------------------|---|--|---|
| Eye contact | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. 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. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| Inhalation | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| Skin contact | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |

SECTION 4: First aid measures

| | | | |
|-----------------------------------|---|--|--|
| Ingestion | : | pCMV-Tag 1 Mammalian Expression Vector | symptoms occur. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| | | pCMV-Tag 1 Control 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. |
| | | XL1-Blue E. coli Strain | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| Protection of first-aiders | : | pCMV-Tag 1 Mammalian Expression Vector | No action shall be taken involving any personal risk or without suitable training. |
| | | pCMV-Tag 1 Control Vector | No action shall be taken involving any personal risk or without suitable training. |
| | | XL1-Blue E. coli Strain | No action shall be taken involving any personal risk or without suitable training. |

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

| | | | |
|---------------------|---|--|---|
| Eye contact | : | pCMV-Tag 1 Mammalian Expression Vector | No known significant effects or critical hazards. |
| | | pCMV-Tag 1 Control Vector | No known significant effects or critical hazards. |
| | | XL1-Blue E. coli Strain | No known significant effects or critical hazards. |
| Inhalation | : | pCMV-Tag 1 Mammalian Expression Vector | No known significant effects or critical hazards. |
| | | pCMV-Tag 1 Control Vector | No known significant effects or critical hazards. |
| | | XL1-Blue E. coli Strain | No known significant effects or critical hazards. |
| Skin contact | : | pCMV-Tag 1 Mammalian Expression Vector | No known significant effects or critical hazards. |
| | | pCMV-Tag 1 Control Vector | No known significant effects or critical hazards. |
| | | XL1-Blue E. coli Strain | No known significant effects or critical hazards. |
| Ingestion | : | pCMV-Tag 1 Mammalian Expression Vector | No known significant effects or critical hazards. |
| | | pCMV-Tag 1 Control Vector | 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-Tag 1 Mammalian Expression Vector | No specific data. |
| | | pCMV-Tag 1 Control Vector | No specific data. |
| | | XL1-Blue E. coli Strain | No specific data. |

SECTION 4: First aid measures

| | | |
|---------------------|--|-------------------|
| Inhalation | : pCMV-Tag 1 Mammalian Expression Vector | No specific data. |
| | pCMV-Tag 1 Control Vector | No specific data. |
| | XL1-Blue E. coli Strain | No specific data. |
| Skin contact | : pCMV-Tag 1 Mammalian Expression Vector | No specific data. |
| | pCMV-Tag 1 Control Vector | No specific data. |
| | XL1-Blue E. coli Strain | No specific data. |
| Ingestion | : pCMV-Tag 1 Mammalian Expression Vector | No specific data. |
| | pCMV-Tag 1 Control Vector | No specific data. |
| | XL1-Blue E. coli Strain | No specific data. |

4.3 Indication of any immediate medical attention and special treatment needed

| | | |
|----------------------------|--|---|
| Notes to physician | : pCMV-Tag 1 Mammalian Expression Vector | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | pCMV-Tag 1 Control Vector | 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-Tag 1 Mammalian Expression Vector | No specific treatment. |
| | pCMV-Tag 1 Control Vector | No specific treatment. |
| | XL1-Blue E. coli Strain | No specific treatment. |

SECTION 5: Firefighting measures**5.1 Extinguishing media**

| | | |
|---------------------------------------|--|---|
| Suitable extinguishing media | : pCMV-Tag 1 Mammalian Expression Vector | Use an extinguishing agent suitable for the surrounding fire. |
| | pCMV-Tag 1 Control Vector | Use an extinguishing agent suitable for the surrounding fire. |
| | XL1-Blue E. coli Strain | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : pCMV-Tag 1 Mammalian Expression Vector | None known. |
| | pCMV-Tag 1 Control Vector | None known. |
| | XL1-Blue E. coli Strain | None known. |

5.2 Special hazards arising from the substance or mixture

| | | |
|--|--|---|
| Hazards from the substance or mixture | : pCMV-Tag 1 Mammalian Expression Vector | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | pCMV-Tag 1 Control Vector | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | XL1-Blue E. coli Strain | In a fire or if heated, a pressure increase will occur and the container may burst. |

SECTION 5: Firefighting measures

| | | |
|--------------------------------------|---|---|
| Hazardous combustion products | : pCMV-Tag 1 Mammalian Expression Vector | No specific data. |
| | pCMV-Tag 1 Control Vector | No specific data. |
| | XL1-Blue E. coli Strain | Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides |

5.3 Advice for firefighters

| | | |
|---|---|---|
| Special precautions for fire-fighters | : pCMV-Tag 1 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-Tag 1 Control 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. |
| | 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-Tag 1 Mammalian Expression Vector | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| | pCMV-Tag 1 Control Vector | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| | XL1-Blue E. coli Strain | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

| | | |
|------------------------------------|---|---|
| For non-emergency personnel | : pCMV-Tag 1 Mammalian Expression Vector | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| | pCMV-Tag 1 Control Vector | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| | XL1-Blue E. coli Strain | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |

SECTION 6: Accidental release measures

| | | | |
|---|---|---|---|
| For emergency responders | : | pCMV-Tag 1 Mammalian Expression Vector | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | | pCMV-Tag 1 Control Vector | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| | | XL1-Blue E. coli Strain | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| 6.2 Environmental precautions | : | pCMV-Tag 1 Mammalian Expression Vector | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| | | pCMV-Tag 1 Control Vector | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| | | XL1-Blue E. coli Strain | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
| 6.3 Methods and material for containment and cleaning up | | | |
| Methods for cleaning up | : | pCMV-Tag 1 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-Tag 1 Control 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. |
| | | XL1-Blue E. coli Strain | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| 6.4 Reference to other sections | : | See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information. | |

SECTION 7: Handling and storage

7.1 Precautions for safe handling

| | | | |
|----------------------------|---|--|---|
| Protective measures | : | pCMV-Tag 1 Mammalian Expression Vector | Put on appropriate personal protective equipment (see Section 8). |
| | | pCMV-Tag 1 Control Vector | Put on appropriate personal protective equipment (see Section 8). |
| | | XL1-Blue E. coli Strain | Put on appropriate personal protective equipment (see Section 8). |

SECTION 7: Handling and storage

| | | |
|---|--|--|
| Advice on general occupational hygiene | : pCMV-Tag 1 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-Tag 1 Control 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. |
| | XL1-Blue E. coli Strain | Potentially biohazardous material. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

7.2 Conditions for safe storage, including any incompatibilities

| | | |
|----------------|--|---|
| Storage | : pCMV-Tag 1 Mammalian Expression Vector | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. |
| | pCMV-Tag 1 Control Vector | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. |
| | XL1-Blue E. coli Strain | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. |

7.3 Specific end use(s)

| | | |
|---|--|---|
| Recommendations | : pCMV-Tag 1 Mammalian Expression Vector | Industrial applications, Professional applications. |
| | pCMV-Tag 1 Control Vector | Industrial applications, Professional applications. |
| | XL1-Blue E. coli Strain | Industrial applications, Professional applications. |
| Industrial sector specific solutions | : pCMV-Tag 1 Mammalian Expression Vector | Not applicable. |
| | pCMV-Tag 1 Control Vector | Not applicable. |
| | XL1-Blue E. coli Strain | Not applicable. |

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|-------------------------------------|--|
| XL1-Blue E. coli Strain Glycerol | EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: Mist |

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

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

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

Individual protection measures

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

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

Skin protection

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

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

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

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

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

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

| | | | |
|--|---|--|----------------|
| Physical state | : | pCMV-Tag 1 Mammalian Expression Vector | Liquid. |
| | | pCMV-Tag 1 Control Vector | Liquid. |
| | | XL1-Blue E. coli Strain | Liquid. |
| Colour | : | pCMV-Tag 1 Mammalian Expression Vector | Not available. |
| | | pCMV-Tag 1 Control Vector | Not available. |
| | | XL1-Blue E. coli Strain | Not available. |
| Odour | : | pCMV-Tag 1 Mammalian Expression Vector | Not available. |
| | | pCMV-Tag 1 Control Vector | Not available. |
| | | XL1-Blue E. coli Strain | Not available. |
| Odour threshold | : | pCMV-Tag 1 Mammalian Expression Vector | Not available. |
| | | pCMV-Tag 1 Control Vector | Not available. |
| | | XL1-Blue E. coli Strain | Not available. |
| pH | : | pCMV-Tag 1 Mammalian Expression Vector | 7.5 |
| | | pCMV-Tag 1 Control Vector | 7.5 |
| | | XL1-Blue E. coli Strain | 7.5 |
| Melting point/freezing point | : | pCMV-Tag 1 Mammalian Expression Vector | 0°C |
| | | pCMV-Tag 1 Control Vector | 0°C |
| | | XL1-Blue E. coli Strain | Not available. |
| Initial boiling point and boiling range | : | pCMV-Tag 1 Mammalian Expression Vector | 100°C |
| | | pCMV-Tag 1 Control Vector | 100°C |
| | | XL1-Blue E. coli Strain | Not available. |
| Flash point | : | pCMV-Tag 1 Mammalian Expression Vector | Not available. |
| | | pCMV-Tag 1 Control Vector | Not available. |
| | | XL1-Blue E. coli Strain | Not available. |
| Evaporation rate | : | pCMV-Tag 1 Mammalian Expression Vector | Not available. |
| | | pCMV-Tag 1 Control Vector | Not available. |
| | | XL1-Blue E. coli Strain | Not available. |

SECTION 9: Physical and chemical properties

| | | | |
|---|---|--|---|
| Flammability (solid, gas) | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Not applicable. Not applicable. Not applicable. |
| Upper/lower flammability or explosive limits | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Not available. Not available. Not available. |
| Vapour pressure | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Not available. Not available. Not available. |
| Vapour density | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Not available. Not available. Not available. |
| Relative density | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Not available. Not available. Not available. |
| Solubility(ies) | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. |
| Partition coefficient: n-octanol/water | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Not available. Not available. Not available. |
| Auto-ignition temperature | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Not available. Not available. Not available. |
| Decomposition temperature | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Not available. Not available. Not available. |
| Viscosity | : | pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Not available. Not available. Not available. |

SECTION 9: Physical and chemical properties

| | | | |
|-----------------------------|---|--|----------------|
| Explosive properties | : | pCMV-Tag 1 Mammalian Expression Vector | Not available. |
| | | pCMV-Tag 1 Control Vector | Not available. |
| | | XL1-Blue E. coli Strain | Not available. |
| Oxidising properties | : | pCMV-Tag 1 Mammalian Expression Vector | Not available. |
| | | pCMV-Tag 1 Control Vector | Not available. |
| | | XL1-Blue E. coli Strain | Not available. |

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

| | | | |
|--|---|--|--|
| 10.1 Reactivity | : | pCMV-Tag 1 Mammalian Expression Vector | No specific test data related to reactivity available for this product or its ingredients. |
| | | pCMV-Tag 1 Control Vector | 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. |
| 10.2 Chemical stability | : | pCMV-Tag 1 Mammalian Expression Vector | The product is stable. |
| | | pCMV-Tag 1 Control Vector | The product is stable. |
| | | XL1-Blue E. coli Strain | The product is stable. |
| 10.3 Possibility of hazardous reactions | : | pCMV-Tag 1 Mammalian Expression Vector | Under normal conditions of storage and use, hazardous reactions will not occur. |
| | | pCMV-Tag 1 Control Vector | 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. |
| 10.4 Conditions to avoid | : | pCMV-Tag 1 Mammalian Expression Vector | No specific data. |
| | | pCMV-Tag 1 Control Vector | No specific data. |
| | | XL1-Blue E. coli Strain | No specific data. |
| 10.5 Incompatible materials | : | pCMV-Tag 1 Mammalian Expression Vector | May react or be incompatible with oxidising materials. |
| | | pCMV-Tag 1 Control Vector | May react or be incompatible with oxidising materials. |
| | | XL1-Blue E. coli Strain | May react or be incompatible with oxidising materials. |

SECTION 10: Stability and reactivity

| | | |
|--|--|--|
| 10.6 Hazardous decomposition products | : pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector 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. |
|--|--|--|

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|-----------|---------|------------|----------|
| XL1-Blue E. coli Strain Sodium chloride | LD50 Oral | Rat | 3000 mg/kg | - |

Acute toxicity estimates

Not available.

Irritation/Corrosion

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

Sensitiser

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

| | | |
|---|--|--|
| Information on likely routes of exposure | : pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector XL1-Blue E. coli Strain | Not available. Not available. Routes of entry anticipated: Oral, Dermal, Inhalation. |
|---|--|--|

Potential acute health effects

| | | |
|-------------------|--|---|
| Inhalation | : pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector 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. |
| Ingestion | : pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector 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. |

SECTION 11: Toxicological information

| | | |
|---------------------|--|---|
| Skin contact | : pCMV-Tag 1 Mammalian Expression Vector | No known significant effects or critical hazards. |
| | pCMV-Tag 1 Control Vector | No known significant effects or critical hazards. |
| | XL1-Blue E. coli Strain | No known significant effects or critical hazards. |
| Eye contact | : pCMV-Tag 1 Mammalian Expression Vector | No known significant effects or critical hazards. |
| | pCMV-Tag 1 Control Vector | 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

| | | |
|---------------------|--|-------------------|
| Inhalation | : pCMV-Tag 1 Mammalian Expression Vector | No specific data. |
| | pCMV-Tag 1 Control Vector | No specific data. |
| | XL1-Blue E. coli Strain | No specific data. |
| Ingestion | : pCMV-Tag 1 Mammalian Expression Vector | No specific data. |
| | pCMV-Tag 1 Control Vector | No specific data. |
| | XL1-Blue E. coli Strain | No specific data. |
| Skin contact | : pCMV-Tag 1 Mammalian Expression Vector | No specific data. |
| | pCMV-Tag 1 Control Vector | No specific data. |
| | XL1-Blue E. coli Strain | No specific data. |
| Eye contact | : pCMV-Tag 1 Mammalian Expression Vector | No specific data. |
| | pCMV-Tag 1 Control Vector | No specific data. |
| | XL1-Blue E. coli Strain | No specific data. |

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

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

| | | |
|----------------|--|---|
| General | : pCMV-Tag 1 Mammalian Expression Vector | No known significant effects or critical hazards. |
| | pCMV-Tag 1 Control Vector | No known significant effects or critical hazards. |
| | XL1-Blue E. coli Strain | No known significant effects or critical hazards. |

SECTION 11: Toxicological information

| | | |
|------------------------------|--|---|
| Carcinogenicity | : pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector 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. |
| Mutagenicity | : pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector 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. |
| Teratogenicity | : pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector 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. |
| Developmental effects | : pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector 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. |
| Fertility effects | : pCMV-Tag 1 Mammalian Expression Vector pCMV-Tag 1 Control Vector 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. |

SECTION 12: Ecological information

12.1 Toxicity

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

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

SECTION 12: Ecological information

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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

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

Packaging

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

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

SECTION 14: Transport information

Regulatory information

ADR/RID / IMDG / IATA : Not regulated.

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

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

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : pCMV-Tag 1 Mammalian Expression Vector Not applicable.
 pCMV-Tag 1 Control Vector Not applicable.
 XL1-Blue E. coli Strain Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia : All components are listed or exempted.
Canada : Not determined.
China : All components are listed or exempted.
Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): All components are listed or exempted.
Malaysia : Not determined.
New Zealand : All components are listed or exempted.
Philippines : Not determined.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.
Turkey : Not determined.
United States : All components are listed or exempted.

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

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms

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

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

| Classification | Justification |
|-----------------|---------------|
| Not classified. | |

Full text of abbreviated H statements

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

Full text of classifications [CLP/GHS]

| | |
|---|--|
| XL1-Blue E. coli Strain Eye Irrit. 2, H319 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 |
|---|--|

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Date of previous issue : No previous validation.

Version : 1

Notice to reader

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