Section 1. Identification

1.1 Product identifier
Product name: pCMV-Script XR Predigested Vector, Part Number 212224
Part No. (Chemical Kit): 212224
Part No.: pCMV-Script XR Predigested Vector 212224-51
XR LacZ Test Insert 217430-52
Validation date: 6/29/2017

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses: Analytical reagent.
- pCMV-Script XR Predigested Vector 0.055 ml (55 µl 30 ng/µl)
- XR LacZ Test Insert 0.005 ml

1.3 Details of the supplier of the safety data sheet
Supplier/Manufacturer: Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

1.4 Emergency telephone number
In case of emergency: CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture
OSHA/HCS status: pCMV-Script XR Predigested Vector
- No signal word.
- XR LacZ Test Insert
- No signal word.

Classification of the substance or mixture
- Not classified.

2.2 GHS label elements
Signal word: pCMV-Script XR Predigested Vector
- No signal word.
- XR LacZ Test Insert
- No signal word.

Hazard statements: pCMV-Script XR Predigested Vector
- No known significant effects or critical hazards.
- XR LacZ Test Insert
- No known significant effects or critical hazards.

Precautionary statements

Date of issue: 06/29/2017
## Section 2. Hazards identification

<table>
<thead>
<tr>
<th>Subsection</th>
<th>pCMV-Script XR Predigested Vector</th>
<th>XR LacZ Test Insert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Response</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Storage</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Disposal</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Supplemental label</td>
<td>None known.</td>
<td>None known.</td>
</tr>
<tr>
<td>elements</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.3 Other hazards

### Hazards not otherwise classified

<table>
<thead>
<tr>
<th>pCMV-Script XR Predigested Vector</th>
<th>XR LacZ Test Insert</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td>None known.</td>
</tr>
</tbody>
</table>

## Section 3. Composition/information on ingredients

### Substance/mixture

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>pCMV-Script XR Predigested Vector</th>
<th>XR LacZ Test Insert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixture</td>
<td>Mixture</td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>pCMV-Script XR Predigested Vector</th>
<th>XR LacZ Test Insert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
<td></td>
</tr>
<tr>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
<td></td>
</tr>
</tbody>
</table>
### Section 4. First aid measures

#### Ingestion

**pCMV-Script XR Predigested 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.

**XR LacZ Test Insert**

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.

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

**Potential acute health effects**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>pCMV-Script XR Predigested Vector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Over-exposure signs/symptoms**

<table>
<thead>
<tr>
<th>Exposure</th>
<th>pCMV-Script XR Predigested Vector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

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

**Notes to physician**

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**

No specific treatment.
Section 4. First aid measures

Protection of first-aiders: 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products: No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters: 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: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: 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.

Date of issue: 06/29/2017
Section 6. Accidental release measures

For emergency responders:

- pCMV-Script XR Predigested Vector
- XR LacZ Test Insert

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".

6.2 Environmental precautions:

- pCMV-Script XR Predigested Vector
- XR LacZ Test Insert

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up:

Methods for cleaning up:

- pCMV-Script XR Predigested Vector
- XR LacZ Test Insert

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Protective measures:

- pCMV-Script XR Predigested Vector
- XR LacZ Test Insert

Advice on general occupational hygiene:

- pCMV-Script XR Predigested Vector
- XR LacZ Test Insert

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.

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.
Section 7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations

Industrial sector specific solutions

Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>None.</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls

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

Date of issue: 06/29/2017
Section 8. Exposure controls/personal protection

**Hand protection**

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

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.

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to protect the eyes from 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.

Eye/face protection

**Body protection**

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

**Other skin protection**

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

**Respiratory protection**

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

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**

**Physical state**
- pCMV-Script XR Predigested Vector: Liquid.
- XR LacZ Test Insert: Liquid.

**Color**
- pCMV-Script XR Predigested Vector: Not available.
- XR LacZ Test Insert: Not available.

**Odor**
- pCMV-Script XR Predigested Vector: Not available.
- XR LacZ Test Insert: Not available.

**Odor threshold**
- pCMV-Script XR Predigested Vector: Not available.
- XR LacZ Test Insert: Not available.

**pH**
- pCMV-Script XR Predigested Vector: 7.5
- XR LacZ Test Insert: 8.5

**Melting point**
- pCMV-Script XR Predigested Vector: 0°C (32°F)
- XR LacZ Test Insert: 0°C (32°F)

**Boiling point**
- pCMV-Script XR Predigested Vector: 100°C (212°F)
- XR LacZ Test Insert: 100°C (212°F)

**Flash point**
- pCMV-Script XR Predigested Vector: Not available.
- XR LacZ Test Insert: Not available.
## Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>pCMV-Script XR Predigested Vector</th>
<th>XR LacZ Test Insert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

## Section 10. Stability and reactivity

### 10.1 Reactivity
- No specific test data related to reactivity available for this product or its ingredients.
- No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability
- The product is stable.
- The product is stable.

### 10.3 Possibility of hazardous reactions
- Under normal conditions of storage and use, hazardous reactions will not occur.
- Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4 Conditions to avoid
- No specific data.
- No specific data.

**Date of issue:** 06/29/2017
Section 10. Stability and reactivity

10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Incompatible with oxidizing materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCMV-Script XR Predigested Vector</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
<tr>
<td>XR LacZ Test Insert</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Material</th>
<th>Hazardous decomposition products should not be produced.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCMV-Script XR Predigested Vector</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>XR LacZ Test Insert</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Not available.

Irritation/Corrosion
Not available.

Sensitization
Not available.

Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

Teratogenicity
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

<table>
<thead>
<tr>
<th>Material</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCMV-Script XR Predigested Vector</td>
<td>Not available.</td>
</tr>
<tr>
<td>XR LacZ Test Insert</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Potential acute health effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>pCMV-Script XR Predigested Vector</td>
</tr>
<tr>
<td></td>
<td>XR LacZ Test Insert</td>
</tr>
<tr>
<td>Inhalation</td>
<td>pCMV-Script XR Predigested Vector</td>
</tr>
<tr>
<td></td>
<td>XR LacZ Test Insert</td>
</tr>
</tbody>
</table>

Date of issue: 06/29/2017
# Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Contact Type</th>
<th>Product Details</th>
<th>Toxicological Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>pCMV-Script XR Predigested Vector&lt;br&gt;XR LacZ Test Insert</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>pCMV-Script XR Predigested Vector&lt;br&gt;XR LacZ Test Insert</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Contact Type</th>
<th>Product Details</th>
<th>Toxicological Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>pCMV-Script XR Predigested Vector&lt;br&gt;XR LacZ Test Insert</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>pCMV-Script XR Predigested Vector&lt;br&gt;XR LacZ Test Insert</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

## 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

<table>
<thead>
<tr>
<th>Category</th>
<th>Product Details</th>
<th>Toxicological Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>pCMV-Script XR Predigested Vector&lt;br&gt;XR LacZ Test Insert</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>pCMV-Script XR Predigested Vector&lt;br&gt;XR LacZ Test Insert</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>pCMV-Script XR Predigested Vector&lt;br&gt;XR LacZ Test Insert</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>pCMV-Script XR Predigested Vector&lt;br&gt;XR LacZ Test Insert</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Developmental effects</td>
<td>pCMV-Script XR Predigested Vector&lt;br&gt;XR LacZ Test Insert</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Fertility effects</td>
<td>pCMV-Script XR Predigested Vector&lt;br&gt;XR LacZ Test Insert</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

### Numerical measures of toxicity

#### Acute toxicity estimates

---

**Date of issue**: 06/29/2017
Section 11. Toxicological information
Not available.

Section 12. Ecological information

12.1 Toxicity
Not available.

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil

- **Soil/water partition coefficient ($K_{OC}$)**: Not available.

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

Section 13. Disposal considerations

13.1 Waste treatment methods

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

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

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

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.
Section 14. Transport information

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

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

Transport in bulk according to 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

U.S. Federal regulations

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304
Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.
SARA 311/312
Classification : pCMV-Script XR Predigested Vector Not applicable.
XR LacZ Test Insert Not applicable.

Composition/information on ingredients
No products were found.

State regulations
Massachusetts : None of the components are listed.
New York : None of the components are listed.
New Jersey : None of the components are listed.
Pennsylvania : None of the components are listed.
California Prop. 65 : Not available.

International regulations
Chemical Weapon Convention List Schedules I, II & III Chemicals
Not listed.

Date of issue : 06/29/2017
Section 15. Regulatory information

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.

Inventory list
Australia : Not determined.
Canada : Not determined.
China : All components are listed or exempted.
Europe : 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 : Not determined.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : All components are listed or exempted.
Thailand : Not determined.
Turkey : Not determined.
United States : All components are listed or exempted.
Viet Nam : Not determined.

Section 16. Other information

History
Date of issue : 06/29/2017
Date of previous issue : 10/27/2015.
Version : 4

Indicates information that has changed from previously issued version.

Notice to reader

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