SAFETY DATA SHEET
TG1 Electroporation-Competent Cells, Part Number 200123

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

1.1 Product identifier
Product name: TG1 Electroporation-Competent Cells, Part Number 200123
Part No. (Kit): 200123
Part No.: TG1 electroporation-competent cells 200123-41
          pUC 18 DNA Control 200231-42

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

<table>
<thead>
<tr>
<th>Identified uses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical reagent.</td>
<td></td>
</tr>
<tr>
<td>TG1 electroporation-competent cells</td>
<td>0.1 ml</td>
</tr>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td>0.01 ml (0.1 ng/µl)</td>
</tr>
</tbody>
</table>

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:
TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Not classified.

Ingredients of unknown toxicity: TG1 electroporation-competent cells
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements
Signal word: No signal word.

Date of issue/Date of revision: 29/12/2017
SECTION 2: Hazards identification

Hazard statements:

- **TG1 electroporation-competent cells**: No known significant effects or critical hazards.
- **pUC 18 DNA Control Plasmid**: No known significant effects or critical hazards.

Precautionary statements:

- **Prevention**:
  - **TG1 electroporation-competent cells**: Not applicable.
  - **pUC 18 DNA Control Plasmid**: Not applicable.

- **Response**:
  - **TG1 electroporation-competent cells**: Not applicable.
  - **pUC 18 DNA Control Plasmid**: Not applicable.

- **Storage**:
  - **TG1 electroporation-competent cells**: Not applicable.
  - **pUC 18 DNA Control Plasmid**: Not applicable.

- **Disposal**:
  - **TG1 electroporation-competent cells**: Not applicable.
  - **pUC 18 DNA Control Plasmid**: Not applicable.

Supplemental label elements:

- **TG1 electroporation-competent cells**: Not applicable.
- **pUC 18 DNA Control Plasmid**: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:

- **TG1 electroporation-competent cells**: Not applicable.
- **pUC 18 DNA Control Plasmid**: Not applicable.

Special packaging requirements:

- **Tactile warning of danger**:
  - **TG1 electroporation-competent cells**: Not applicable.
  - **pUC 18 DNA Control Plasmid**: Not applicable.

2.3 Other hazards:

- **Other hazards which do not result in classification**:
  - **TG1 electroporation-competent cells**: None known.
  - **pUC 18 DNA Control Plasmid**: None known.

SECTION 3: Composition/information on ingredients

3.1 Substances:

- **TG1 electroporation-competent cells**: Mixture
- **pUC 18 DNA Control Plasmid**: Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG1 electroporation-competent cells</td>
<td>Glycerol</td>
<td>≤10</td>
<td>Not classified.</td>
<td>[2]</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 29/12/2017
**SECTION 3: Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Type</th>
<th>Substance classified with a health or environmental hazard</th>
<th>Substance with a workplace exposure limit</th>
<th>Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII</th>
<th>Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</th>
<th>Substance of equivalent concern</th>
<th>Additional disclosure due to company policy</th>
</tr>
</thead>
</table>

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

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

- **Eye contact**
  - **TG1 electroporation-competent cells**: 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.
  - **pUC 18 DNA 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.

- **Inhalation**
  - **TG1 electroporation-competent cells**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
  - **pUC 18 DNA Control Plasmid**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

- **Skin contact**
  - **TG1 electroporation-competent cells**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
  - **pUC 18 DNA Control Plasmid**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

- **Ingestion**
  - **TG1 electroporation-competent cells**: 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.
  - **pUC 18 DNA Control Plasmid**: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

- **Protection of first-aiders**
  - **TG1 electroporation-competent cells**: No action shall be taken involving any personal risk or without suitable training.
  - **pUC 18 DNA Control Plasmid**: 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**
    - **TG1 electroporation-competent cells**: No known significant effects or critical hazards.
    - **pUC 18 DNA Control Plasmid**: No known significant effects or critical hazards.
SECTION 4: First aid measures

Inhalation: TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Skin contact: TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Ingestion: TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
None known.

5.2 Special hazards arising from the substance or mixture

Hazard from the substance or mixture: TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
In a fire or if heated, a pressure increase will occur and the container may burst.
SECTION 5: Firefighting measures

5.3 Advice for firefighters

Special precautions for fire-fighters:

- **TG1 electroporation-competent cells**
  - 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.

- **pUC 18 DNA 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.

Special protective equipment for fire-fighters:

- **TG1 electroporation-competent cells**
  - 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.

- **pUC 18 DNA Control Plasmid**
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

- **TG1 electroporation-competent cells**
  - 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.

- **pUC 18 DNA Control Plasmid**
  - No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

For emergency responders:

- **TG1 electroporation-competent cells**
  - 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".

- **pUC 18 DNA Control Plasmid**
  - If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions:

- **TG1 electroporation-competent cells**
  - 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).

- **pUC 18 DNA Control Plasmid**
  - Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Date of issue/Date of revision: 29/12/2017
SECTION 6: Accidental release measures

Methods for cleaning up:

- **TG1 electroporation-competent cells**: 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.

- **pUC 18 DNA 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.

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:

- **TG1 electroporation-competent cells**: Put on appropriate personal protective equipment (see Section 8).
- **pUC 18 DNA Control Plasmid**: Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene:

- **TG1 electroporation-competent cells**: 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.
- **pUC 18 DNA 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.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

- **TG1 electroporation-competent cells**: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
- **pUC 18 DNA Control Plasmid**: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)
SECTION 7: Handling and storage

Recommendations

TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
Industrial applications, Professional applications.

Industrial sector specific solutions

TG1 electroporation-competent cells
pUC 18 DNA Control Plasmid
Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG1 electroporation-competent cells Glycerol</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m³ 8 hours. Form: Mist</td>
</tr>
</tbody>
</table>

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

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.

Date of issue/Date of revision: 29/12/2017
SECTION 8: Exposure controls/personal protection

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: TG1 electroporation-competent cells Liquid.
pUC 18 DNA Control Plasmid Liquid.

Colour: TG1 electroporation-competent cells Not available.
pUC 18 DNA Control Plasmid Not available.

Odour: TG1 electroporation-competent cells Not available.
pUC 18 DNA Control Plasmid Not available.

Odour threshold: TG1 electroporation-competent cells Not available.
pUC 18 DNA Control Plasmid Not available.

pH: TG1 electroporation-competent cells Not available.
pUC 18 DNA Control Plasmid 7.5

Melting point/freezing point: TG1 electroporation-competent cells Not available.
pUC 18 DNA Control Plasmid 0°C

Initial boiling point and boiling range: TG1 electroporation-competent cells Not available.
pUC 18 DNA Control Plasmid 100°C

Flash point: TG1 electroporation-competent cells Not available.
pUC 18 DNA Control Plasmid Not available.

Evaporation rate: TG1 electroporation-competent cells Not available.
pUC 18 DNA Control Plasmid Not available.

Flammability (solid, gas): TG1 electroporation-competent cells Not applicable.
pUC 18 DNA Control Plasmid Not applicable.
**SECTION 9: Physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>TG1 electroporation-competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour 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(ies)</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>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

9.2 Other information
No additional information.

**SECTION 10: Stability and reactivity**

<table>
<thead>
<tr>
<th>Reactivity</th>
<th>TG1 electroporation-competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 29/12/2017
SECTION 10: Stability and reactivity

10.2 Chemical stability

<table>
<thead>
<tr>
<th>Material</th>
<th>Stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG1 electroporation-competent cells</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td>The product is stable.</td>
</tr>
</tbody>
</table>

10.3 Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Material</th>
<th>Under normal conditions of storage and use, hazardous reactions will not occur.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG1 electroporation-competent cells</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td></td>
</tr>
</tbody>
</table>

10.4 Conditions to avoid

<table>
<thead>
<tr>
<th>Material</th>
<th>No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG1 electroporation-competent cells</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td></td>
</tr>
</tbody>
</table>

10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Material</th>
<th>May react or be incompatible with oxidising materials.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG1 electroporation-competent cells</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td></td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Material</th>
<th>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG1 electroporation-competent cells</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not available.

Acute toxicity estimates

Not available.

Irritation/Corrosion

Conclusion/Summary

Not available.

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

<table>
<thead>
<tr>
<th>Material</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG1 electroporation-competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td></td>
</tr>
</tbody>
</table>

Potential acute health effects

Inhalation

<table>
<thead>
<tr>
<th>Material</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG1 electroporation-competent cells</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td></td>
</tr>
</tbody>
</table>

Date of issue/Date of revision : 29/12/2017
**SECTION 11: Toxicological information**

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Substance</th>
<th>Toxicological Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>TG1 electroporation-competent cells</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>TG1 electroporation-competent cells</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>TG1 electroporation-competent cells</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>pUC 18 DNA Control Plasmid</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>Exposure Type</th>
<th>Substance</th>
<th>Toxicological Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>TG1 electroporation-competent cells</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>TG1 electroporation-competent cells</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>TG1 electroporation-competent cells</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>TG1 electroporation-competent cells</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

**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**: No known significant effects or critical hazards.
- **Carcinogenicity**: No known significant effects or critical hazards.
- **Mutagenicity**: No known significant effects or critical hazards.
SECTION 11: Toxicological information

Teratogenicity: TG1 electroporation-competent cells pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Developmental effects: TG1 electroporation-competent cells pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Fertility effects: TG1 electroporation-competent cells pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity
Conclusion/Summary: Not available.

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil
Soil/water partition coefficient (K_{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.

Date of issue/Date of revision: 29/12/2017
SECTION 14: Transport 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.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

TG1 electroporation-competent cells Not applicable.
pUC 18 DNA Control Plasmid Not applicable.

Other EU regulations

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.

Inventory list

Australia: All components are listed or exempted.
Canada: All components are listed or exempted.
China: All components are listed or exempted.
Europe: All components are listed or exempted.

Date of issue/Date of revision: 29/12/2017

13/14
SECTION 15: Regulatory information

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]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not classified.</td>
<td></td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements

Not applicable.

Full text of classifications [CLP/GHS]

Not applicable.

Date of issue/ Date of revision : 29/12/2017

Date of previous issue : No previous validation.

Version : 1

Notice to reader

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