SAFETY DATA SHEET
96 Pack Gold Competent Cells, Part Number 200324

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

1.1 Product identifier
Product name: 96 Pack Gold Competent Cells, Part Number 200324
Part no. (chemical kit): 200324
Part no.: 96Pack Gold Competent Cells 200324-41
pUC 18 DNA Control 200231-42

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses: Analytical reagent.
96Pack Gold Competent Cells 5.76 ml
pUC 18 DNA Control Plasmid 0.01 ml (0.1 ng/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: 96Pack Gold Competent Cells
pUC 18 DNA Control Plasmid

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

Ingredients of unknown toxicity: 96Pack Gold Competent Cells
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown acute 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
SECTION 2: Hazards identification

Signal word

- **96 Pack Gold Competent Cells**
  - No signal word.
- **pUC 18 DNA Control Plasmid**
  - No signal word.

Hazard statements

- **96 Pack Gold Competent Cells**
  - No known significant effects or critical hazards.
- **pUC 18 DNA Control Plasmid**
  - No known significant effects or critical hazards.

Precautionary statements

**Prevention**

- **96 Pack Gold Competent Cells**
  - Not applicable.
- **pUC 18 DNA Control Plasmid**
  - Not applicable.

**Response**

- **96 Pack Gold Competent Cells**
  - Not applicable.
- **pUC 18 DNA Control Plasmid**
  - Not applicable.

**Storage**

- **96 Pack Gold Competent Cells**
  - Not applicable.
- **pUC 18 DNA Control Plasmid**
  - Not applicable.

**Disposal**

- **96 Pack Gold Competent Cells**
  - Not applicable.
- **pUC 18 DNA Control Plasmid**
  - Not applicable.

Supplemental label elements

- **96 Pack Gold 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

- **96 Pack Gold Competent Cells**
  - Not applicable.
- **pUC 18 DNA Control Plasmid**
  - Not applicable.

Special packaging requirements

**Tactile warning of danger**

- **96 Pack Gold Competent Cells**
  - Not applicable.
- **pUC 18 DNA Control Plasmid**
  - Not applicable.

2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

- **96 Pack Gold Competent Cells**
  - This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
- **pUC 18 DNA Control Plasmid**
  - This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification**

- **96 Pack Gold Competent Cells**
  - None known.
- **pUC 18 DNA Control Plasmid**
  - None known.
SECTION 3: Composition/information on ingredients

<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>Glycerol</td>
<td>EC: 200-289-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAS: 56-81-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sucrose</td>
<td>REACH #: Annex IV</td>
<td>≤10</td>
<td>Not classified.</td>
<td>[2]</td>
</tr>
<tr>
<td></td>
<td>EC: 200-334-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAS: 57-50-1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of first aid measures

**Eye contact**

- 96Pack Gold Competent Cells
- 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**

- 96Pack Gold Competent Cells
- 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**

- 96Pack Gold Competent Cells
- pUC 18 DNA Control Plasmid

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**

- 96Pack Gold Competent Cells
- 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.
SECTION 4: First aid measures

Protection of first-aiders:

<table>
<thead>
<tr>
<th>Product</th>
<th>Protection Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>96Pack Gold Competent Cells  pUC 18 DNA Control Plasmid</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Product</th>
<th>Symptoms/Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>96Pack Gold Competent Cells  pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Product</th>
<th>Symptoms/Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>96Pack Gold Competent Cells  pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Product</th>
<th>Symptoms/Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>96Pack Gold Competent Cells  pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Product</th>
<th>Symptoms/Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>96Pack Gold Competent Cells  pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Product</th>
<th>Symptoms/Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>96Pack Gold Competent Cells  pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Product</th>
<th>Symptoms/Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>96Pack Gold Competent Cells  pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician:

<table>
<thead>
<tr>
<th>Product</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>96Pack Gold Competent Cells  pUC 18 DNA Control Plasmid</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
</tbody>
</table>

Specific treatments:

<table>
<thead>
<tr>
<th>Product</th>
<th>Specific Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>96Pack Gold Competent Cells  pUC 18 DNA Control Plasmid</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>
SECTION 5: Firefighting measures

5.1 Extinguishing media

- **Suitable extinguishing media**:
  - 96Pack Gold Competent Cells
  - pUC 18 DNA Control Plasmid
  Use an extinguishing agent suitable for the surrounding fire.

- **Unsuitable extinguishing media**:
  - 96Pack Gold Competent Cells
  - pUC 18 DNA Control Plasmid
  None known.

5.2 Special hazards arising from the substance or mixture

- **Hazards from the substance or mixture**:
  - 96Pack Gold Competent Cells
  - pUC 18 DNA Control Plasmid
  In a fire or if heated, a pressure increase will occur and the container may burst.

- **Hazardous combustion products**:
  - 96Pack Gold Competent Cells
  - pUC 18 DNA Control Plasmid
  Decomposition products may include the following materials:
    - carbon dioxide
    - carbon monoxide
    - sulfur oxides
    - halogenated compounds
    - metal oxides
  No specific data.

5.3 Advice for firefighters

- **Special precautions for fire-fighters**:
  - 96Pack Gold Competent Cells
  - 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**:
  - 96Pack Gold Competent Cells
  - 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**:
  - 96Pack Gold Competent Cells
  - 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 spill material. Put on appropriate personal protective equipment.

Date of issue/Date of revision : 23/03/2020  Date of previous issue : 16/02/2018  Version : 3 5/15
SECTION 6: Accidental release measures

For emergency responders:

96 Pack Gold 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:

96 Pack Gold 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:

Methods for cleaning up:

96 Pack Gold 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:

96 Pack Gold 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:

96 Pack Gold 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
SECTION 7: Handling and storage

**96 Pack Gold 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)

**Recommendations**
- **Industrial sector specific solutions**
  - **96Pack Gold Competent Cells**: Industrial applications, Professional applications.
  - **pUC 18 DNA Control Plasmid**: Industrial applications, Professional applications.

**Industrial sector specific solutions**
- **96Pack Gold Competent Cells**: Not applicable.
- **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>96Pack Gold Competent Cells</td>
<td><strong>EH40/2005 WELs (United Kingdom (UK), 8/2018).</strong> TWA: 10 mg/m³ 8 hours. Form: Mist</td>
</tr>
<tr>
<td>Glycerol</td>
<td><strong>EH40/2005 WELs (United Kingdom (UK), 8/2018).</strong> STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Sucrose</td>
<td><strong>EH40/2005 WELs (United Kingdom (UK), 8/2018).</strong> STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</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**

**Date of issue/Date of revision**: 23/03/2020  **Date of previous issue**: 16/02/2018  **Version**: 3  7/15
SECTION 8: Exposure controls/personal protection

No PNECs available

8.2 Exposure controls

Appropriate engineering controls

Individual protection measures

Hygiene measures

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Ensure that eyewash stations and safety showers are close to the workstation location.

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. 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

96Pack Gold Competent Cells pUC 18 DNA Control Plasmid

Liquid.

96Pack Gold Competent Cells pUC 18 DNA Control Plasmid

Liquid.

Colour

96Pack Gold Competent Cells pUC 18 DNA Control Plasmid

Not available.

96Pack Gold Competent Cells pUC 18 DNA Control Plasmid

Not available.

Odour

96Pack Gold Competent Cells pUC 18 DNA Control Plasmid

Not available.

96Pack Gold Competent Cells pUC 18 DNA Control Plasmid

Not available.

Odour threshold

96Pack Gold Competent Cells pUC 18 DNA Control Plasmid

Not available.

96Pack Gold Competent Cells pUC 18 DNA Control Plasmid

Not available.
### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>96Pack Gold Competent Cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>pUC 18 DNA Control Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>pH</strong></td>
<td>6.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>Not available.</td>
<td>100°C</td>
<td></td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not applicable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td>Easily solubles in the following materials: cold water and hot water.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 9: Physical and chemical properties

Viscosity: Not available.

Explosive properties: Not available.

Oxidising properties: Not available.

9.2 Other information
No additional information.

SECTION 10: Stability and reactivity

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

10.2 Chemical stability: The product is stable.

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

10.4 Conditions to avoid: No specific data.

10.5 Incompatible materials: May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products: 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: Not available.

Acute toxicity estimates: N/A

Irritation/Corrosion: Not available.

Conclusion/Summary: Not available.
SECTION 11: Toxicological information

Sensitiser
Conclusion/Summary: Not available.

Mutagenicity
Conclusion/Summary: Not available.

Carcinogenicity
Conclusion/Summary: Not available.

Reproductive toxicity
Conclusion/Summary: Not available.

Teratogenicity
Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on likely routes of exposure
6Pack Gold Competent Cells
pUC 18 DNA Control Plasmid
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects
Inhalation:
96Pack Gold Competent Cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Ingestion:
96Pack Gold Competent Cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Skin contact:
96Pack Gold Competent Cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Eye contact:
96Pack Gold Competent Cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics
Inhalation:
96Pack Gold Competent Cells
pUC 18 DNA Control Plasmid
No specific data.

Ingestion:
96Pack Gold Competent Cells
pUC 18 DNA Control Plasmid
No specific data.

Skin contact:
96Pack Gold Competent Cells
pUC 18 DNA Control Plasmid
No specific data.

Eye contact:
96Pack Gold Competent Cells
pUC 18 DNA Control Plasmid
No specific data.
SECTION 11: Toxicological information

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 : 96Pack Gold Competent Cells pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Carcinogenicity : 96Pack Gold Competent Cells pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Mutagenicity : 96Pack Gold Competent Cells pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Teratogenicity : 96Pack Gold Competent Cells pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Developmental effects : 96Pack Gold Competent Cells pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Fertility effects : 96Pack Gold 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

Date of issue/Date of revision : 23/03/2020 Date of previous issue : 16/02/2018 Version : 3
SECTION 12: Ecological information

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

<table>
<thead>
<tr>
<th>UN number</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
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<td>14.5</td>
<td>No.</td>
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Environmental hazards

Additional information

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 IMO instruments : 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

Label:

96 Pack Gold Competent Cells
pUC 18 DNA Control Plasmid

Not applicable.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air

Listed

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

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
Not determined.

Europe
All components are listed or exempted.

Japan
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): All components are listed or exempted.

New Zealand
Not determined.

Philippines
Not determined.

Republic of Korea
All components are listed or exempted.

Taiwan
All components are listed or exempted.

Thailand
Not determined.

Turkey
Not determined.
SECTION 15: Regulatory information

United States: All components are active or exempted.
Viet Nam: Not determined.

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]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

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

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

Full text of abbreviated H statements
Not applicable.

Full text of classifications [CLP/GHS]
Not applicable.

Date of issue/Date of revision: 23/03/2020
Date of previous issue: 16/02/2018
Version: 3

Notice to reader

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