SURE Electroporation-Competent Cells, Part Number 200227

SAFETY DATA SHEET

Section 1. Identification

Product identifier : SURE Electroporation-Competent Cells, Part Number 200227
Part no. (chemical kit) : 200227
Part no. : SURE electroporation competent cells  200227-41
pUC 18 DNA Control Plasmid  200231-42
Material uses : Analytical reagent.
SURE electroporation competent cells  5 x 0.1 ml
pUC 18 DNA Control Plasmid  0.01 ml (0.1 ng/µl)
Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

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

Section 2. Hazard identification

Classification of the substance or mixture
Not classified.

GHS label elements
Signal word : SURE electroporation No signal word.
competent cells
pUC 18 DNA Control Plasmid No signal word.

Hazard statements : SURE electroporation No known significant effects or critical hazards.
competent cells
pUC 18 DNA Control Plasmid No known significant effects or critical hazards.

Precautionary statements
Prevention : SURE electroporation Not applicable.
competent cells
pUC 18 DNA Control Plasmid Not applicable.
Response : SURE electroporation Not applicable.
competent cells
pUC 18 DNA Control Plasmid Not applicable.
Storage : SURE electroporation Not applicable.
competent cells
pUC 18 DNA Control Plasmid Not applicable.
Disposal : SURE electroporation Not applicable.
competent cells
pUC 18 DNA Control Plasmid Not applicable.

Supplemental label elements : SURE electroporation None known.
competent cells
pUC 18 DNA Control Plasmid None known.

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

Date of issue/Date of revision : 03/23/2020  Date of previous issue : 02/15/2018  Version : 6
SURE Electroporation-Competent Cells, Part Number 200227

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURE electroporation competent cells</td>
<td>Glycerol</td>
<td>5 - 10</td>
<td>56-81-5</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.

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

Section 4. First-aid measures

**Description of necessary first aid measures**

**Eye contact**
- SURE 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**
- SURE 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**
- SURE 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**
- SURE 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.

**Potential acute health effects**

**Eye contact**
- SURE 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

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation</strong></td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

#### Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No specific data.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No specific data.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No specific data.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Notes to physician</strong> SURE electroporation 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>
<tr>
<td><strong>Specific treatments</strong> SURE electroporation competent cells pUC 18 DNA Control Plasmid</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

**Protection of first-aiders** SURE electroporation competent cells pUC 18 DNA Control Plasmid No action shall be taken involving any personal risk or without suitable training.

#### See toxicological information (Section 11)

### Section 5. Fire-fighting measures

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Extinguishing media</strong></td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td><strong>Suitable extinguishing media</strong></td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td><strong>Unsuitable extinguishing media</strong></td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid None known.</td>
</tr>
<tr>
<td><strong>Specific hazards arising from the chemical</strong> SURE electroporation competent cells pUC 18 DNA Control Plasmid</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision** : 03/23/2020  **Date of previous issue** : 02/15/2018  **Version** : 6
### Section 5. Fire-fighting measures

<table>
<thead>
<tr>
<th>Hazardous thermal decomposition products</th>
<th>: SURE electroporation competent cells</th>
<th>Decomposition products may include the following materials: carbon dioxide, carbon monoxide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

**Special protective actions for fire-fighters**

<table>
<thead>
<tr>
<th>: SURE electroporation competent cells</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td>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.</td>
</tr>
</tbody>
</table>

**Special protective equipment for fire-fighters**

<table>
<thead>
<tr>
<th>: SURE electroporation competent cells</th>
<th>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
</tbody>
</table>

### Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**

<table>
<thead>
<tr>
<th>: SURE electroporation competent cells</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td>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.</td>
</tr>
</tbody>
</table>

**For emergency responders**

<table>
<thead>
<tr>
<th>: SURE electroporation competent cells</th>
<th>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 &quot;For non-emergency personnel&quot;.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td>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 &quot;For non-emergency personnel&quot;.</td>
</tr>
</tbody>
</table>

**Environmental precautions**

<table>
<thead>
<tr>
<th>: SURE electroporation competent cells</th>
<th>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).</th>
</tr>
</thead>
<tbody>
<tr>
<td>pUC 18 DNA Control Plasmid</td>
<td>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).</td>
</tr>
</tbody>
</table>
Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Methods for cleaning up: SURE 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: SURE 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: SURE 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.

Conditions for safe storage, including any incompatibilities: SURE 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 unlabeled 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 unlabeled containers. Use appropriate containment to avoid...
Section 7. Handling and storage

Sure electroporation competent cells, Part Number 200227

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURE electroporation competent cells</td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
</tr>
</tbody>
</table>

| CA Alberta Provincial (Canada, 6/2018).   | 8 hrs OEL: 10 mg/m³ 8 hours. Form: Mist |
| CA Quebec Provincial (Canada, 1/2014).   | TWA/EV: 10 mg/m³ 8 hours. Form: mist   |
| CA Saskatchewan Provincial (Canada, 7/2013). | STEL: 20 mg/m³ 15 minutes. Form: mist |
|                                           | TWA: 10 mg/m³ 8 hours. Form: mist      |
| CA Ontario Provincial (Canada, 1/2018).   | TWA: 10 mg/m³ 8 hours. Form: mist      |
| CA British Columbia Provincial (Canada, 5/2019). | TWA: 3 mg/m³ 8 hours. Form: respirable mist |
|                                           | TWA: 10 mg/m³ 8 hours. Form: total mist |

Appropriate engineering controls

Environmental exposure controls

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

Individual protection measures

Hygiene measures

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

Eye/face protection

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

Skin protection

Hand protection

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

Body protection

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

Section 9. Physical and chemical properties

### Appearance

<table>
<thead>
<tr>
<th>Physical state</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Liquid.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Color</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Not available.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Odor</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Not available.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Odor threshold</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Not available.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>pH</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>7.5</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Melting point</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>0°C (32°F)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Boiling point</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>100°C (212°F)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Flash point</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Not available.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Evaporation rate</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Not available.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Flammability (solid, gas)</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Not applicable.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Lower and upper explosive (flammable) limits</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Not available.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Vapor pressure</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Not available.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Vapor density</th>
<th>SURE electroporation competent cells</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Not available.</th>
</tr>
</thead>
</table>

| Relative density | SURE electroporation competent cells | pUC 18 DNA Control Plasmid | Not available. |
# Section 9. Physical and chemical properties

### Solubility
- **SURE electroporation competent cells**
  - Easily soluble in the following materials: cold water and hot water.
- **pUC 18 DNA Control Plasmid**
  - Easily soluble in the following materials: cold water and hot water.

### Partition coefficient: n-octanol/water
- **SURE electroporation competent cells**
  - Not available.
- **pUC 18 DNA Control Plasmid**
  - Not available.

### Auto-ignition temperature
- **SURE electroporation competent cells**
  - Not available.
- **pUC 18 DNA Control Plasmid**
  - Not available.

### Decomposition temperature
- **SURE electroporation competent cells**
  - Not available.
- **pUC 18 DNA Control Plasmid**
  - Not available.

### Viscosity
- **SURE electroporation competent cells**
  - Not available.
- **pUC 18 DNA Control Plasmid**
  - Not available.

# Section 10. Stability and reactivity

### Reactivity
- **SURE electroporation competent cells**
  - No specific test data related to reactivity available for this product or its ingredients.
- **pUC 18 DNA Control Plasmid**
  - No specific test data related to reactivity available for this product or its ingredients.

### Chemical stability
- **SURE electroporation competent cells**
  - The product is stable.
- **pUC 18 DNA Control Plasmid**
  - The product is stable.

### Possibility of hazardous reactions
- **SURE electroporation competent cells**
  - Under normal conditions of storage and use, hazardous reactions will not occur.
- **pUC 18 DNA Control Plasmid**
  - Under normal conditions of storage and use, hazardous reactions will not occur.

### Conditions to avoid
- **SURE electroporation competent cells**
  - No specific data.
- **pUC 18 DNA Control Plasmid**
  - No specific data.

### Incompatible materials
- **SURE electroporation competent cells**
  - May react or be incompatible with oxidizing materials.
- **pUC 18 DNA Control Plasmid**
  - May react or be incompatible with oxidizing materials.

### Hazardous decomposition products
- **SURE electroporation competent cells**
  - Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **pUC 18 DNA Control Plasmid**
  - Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURE electroporation</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>competent cells</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURE electroporation</td>
<td>Eyes - Mild</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td>competent cells</td>
<td>irritant</td>
<td></td>
<td></td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td>Skin - Mild</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>irritant</td>
<td></td>
<td></td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization

Not available.

Mutagenicity

Conclusion/Summary: Not available.

Carcinogenicity

Conclusion/Summary: Not available.

Reproductive toxicity

Conclusion/Summary: Not available.

Teratogenicity

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

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

Potential acute health effects

Eye contact

No known significant effects or critical hazards.

Inhalation

No known significant effects or critical hazards.

Skin contact

No known significant effects or critical hazards.

Ingestion

No known significant effects or critical hazards.
# Section 11. Toxicological information

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

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>:</th>
<th>SURE electroporation competent cells pUC 18 DNA Control Plasmid No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>:</td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>:</td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>:</td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No specific data.</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>General</th>
<th>:</th>
<th>SURE electroporation competent cells pUC 18 DNA Control Plasmid No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenicity</td>
<td>:</td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>:</td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>:</td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Developmental effects</td>
<td>:</td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Fertility effects</td>
<td>:</td>
<td>SURE electroporation competent cells pUC 18 DNA Control Plasmid No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

## Numerical measures of toxicity

### Acute toxicity estimates
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation (gases) (ppm)</th>
<th>Inhalation (vapors) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURE electroporation competent cells</td>
<td>12600</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURE electroporation competent cells</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURE electroporation competent cells</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>93 % - 30 days</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>SURE electroporation competent cells</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mobility in soil

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

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Section 14. Transport information

TDG / IMDG / IATA: Not regulated.

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

Transport in bulk according to IMO instruments: Not available.

Section 15. Regulatory information

Canadian lists
Canadian NPRI: None of the components are listed.
CEPA Toxic substances: None of the components are listed.

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

Montreal Protocol
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list
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.
Japan: Japan inventory (ENCS): All components are listed or exempted. Japan inventory (ISHL): All components are listed or exempted.
New Zealand: All components are listed or exempted.
Philippines: All components are listed or exempted.
Republic of Korea: All components are listed or exempted.
Taiwan: All components are listed or exempted.
Thailand: Not determined.
Turkey: Not determined.
United States: All components are active or exempted.
Viet Nam: All components are listed or exempted.
Section 16. Other information

History

Date of issue/Date of revision: 03/23/2020
Date of previous issue: 02/15/2018
Version: 6

Key to abbreviations:

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
N/A = Not available
UN = United Nations

Procedure used to derive the classification

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

References: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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