SAFETY DATA SHEET
ABLE K Electroporation-Competent Cells, Part Number 200162

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

1.1 Product identifier
Product name: ABLE K Electroporation-Competent Cells, Part Number 200162
Part No. (Kit): 200162
Part No.: ABLE K electroporation competent cells 200162-41
pUC18 Control Plasmid DNA 200231-42

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

<table>
<thead>
<tr>
<th>Identified uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical reagent.</td>
</tr>
<tr>
<td>ABLE K electroporation competent cells</td>
</tr>
<tr>
<td>pUC18 Control Plasmid DNA</td>
</tr>
<tr>
<td>0.5 ml (0.1 ml/ Tube)</td>
</tr>
<tr>
<td>0.01 ml</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: ABLE K electroporation competent cells Mixture
pUC18 Control Plasmid DNA Mixture

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

Ingredients of unknown ecotoxicity: ABLE K electroporation competent cells
pUC18 Control Plasmid DNA
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 11.4%
Not applicable.

Classification according to Directive 1999/45/EC [DPD]
ABLE K electroporation competent cells
pUC18 Control Plasmid DNA
The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.
The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification: ABLE K electroporation competent cells
pUC18 Control Plasmid DNA
Not classified.

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SECTION 2: Hazards identification

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

2.2 Label elements

Signal word: ABLE K electroporation competent cells pUC18 Control Plasmid DNA
No signal word.

Hazard statements: ABLE K electroporation competent cells pUC18 Control Plasmid DNA
No known significant effects or critical hazards.

Precautionary statements

Prevention: ABLE K electroporation competent cells pUC18 Control Plasmid DNA
Not applicable.

Response: ABLE K electroporation competent cells pUC18 Control Plasmid DNA
Not applicable.

Storage: ABLE K electroporation competent cells pUC18 Control Plasmid DNA
Not applicable.

Disposal: ABLE K electroporation competent cells pUC18 Control Plasmid DNA
Not applicable.

Hazardous ingredients: No hazardous ingredient
Not applicable.

Supplemental label elements: ABLE K electroporation competent cells pUC18 Control Plasmid DNA
Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
Not applicable.

Special packaging requirements

Tactile warning of danger: ABLE K electroporation competent cells pUC18 Control Plasmid DNA
Not applicable.

2.3 Other hazards

Other hazards which do not result in classification: ABLE K electroporation competent cells pUC18 Control Plasmid DNA
None known.
SECTION 3: Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Type</th>
<th>No hazardous ingredient</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABLE K electroporation competent cells</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pUC18 Control Plasmid DNA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit 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

SECTION 4: First aid measures

4.1 Description of first aid measures

**Eye contact**

ABLE K electroporation competent cells

pUC18 Control Plasmid DNA

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**

ABLE K electroporation competent cells

pUC18 Control Plasmid DNA

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact**

ABLE K electroporation competent cells

pUC18 Control Plasmid DNA

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

**Ingestion**

ABLE K electroporation competent cells

pUC18 Control Plasmid DNA

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**

ABLE K electroporation competent cells

pUC18 Control Plasmid DNA

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
### SECTION 4: First aid measures

<table>
<thead>
<tr>
<th></th>
<th>ABLE K electroporation competent cells</th>
<th>pUC18 Control Plasmid DNA</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>ABLE K electroporation competent cells</td>
<td>pUC18 Control Plasmid DNA</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>ABLE K electroporation competent cells</td>
<td>pUC18 Control Plasmid DNA</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>ABLE K electroporation competent cells</td>
<td>pUC18 Control Plasmid DNA</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>ABLE K electroporation competent cells</td>
<td>pUC18 Control Plasmid DNA</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

#### Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th></th>
<th>ABLE K electroporation competent cells</th>
<th>pUC18 Control Plasmid DNA</th>
<th>No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>ABLE K electroporation competent cells</td>
<td>pUC18 Control Plasmid DNA</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>ABLE K electroporation competent cells</td>
<td>pUC18 Control Plasmid DNA</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>ABLE K electroporation competent cells</td>
<td>pUC18 Control Plasmid DNA</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>ABLE K electroporation competent cells</td>
<td>pUC18 Control Plasmid DNA</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

#### 4.3 Indication of any immediate medical attention and special treatment needed

<table>
<thead>
<tr>
<th>Notes to physician</th>
<th>ABLE K electroporation competent cells</th>
<th>pUC18 Control Plasmid DNA</th>
<th>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific treatments</td>
<td>ABLE K electroporation competent cells</td>
<td>pUC18 Control Plasmid DNA</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

| Suitable extinguishing media | ABLE K electroporation competent cells | pUC18 Control Plasmid DNA | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | ABLE K electroporation competent cells | pUC18 Control Plasmid DNA | None known. |

#### 5.2 Special hazards arising from the substance or mixture
SECTION 5: Firefighting measures

<table>
<thead>
<tr>
<th>Hazards from the substance or mixture</th>
<th>ABLE K electroporation competent cells</th>
<th>In a fire or if heated, a pressure increase will occur and the container may burst.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>Hazardous combustion products</td>
<td>ABLE K electroporation competent cells</td>
<td>Decomposition products may include the following materials:</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>carbon dioxide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>carbon monoxide</td>
</tr>
</tbody>
</table>

5.3 Advice for firefighters

**Special precautions for fire-fighters**

<table>
<thead>
<tr>
<th>Product</th>
<th>Prevention measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABLE K electroporation competent cells</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>
<tr>
<td>pUC18 Control Plasmid DNA</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>Product</th>
<th>Equipment and protective gear</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABLE K electroporation competent cells</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. 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.</td>
</tr>
<tr>
<td>pUC18 Control Plasmid DNA</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. 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.</td>
</tr>
</tbody>
</table>

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

<table>
<thead>
<tr>
<th>Product</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABLE K electroporation competent cells</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 spilt material. Put on appropriate personal protective equipment.</td>
</tr>
<tr>
<td>pUC18 Control Plasmid DNA</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 spilt material. Put on appropriate personal protective equipment.</td>
</tr>
</tbody>
</table>

**For emergency responders**

<table>
<thead>
<tr>
<th>Product</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABLE K electroporation competent cells</td>
<td>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 &quot;For non-emergency personnel&quot;.</td>
</tr>
<tr>
<td>pUC18 Control Plasmid DNA</td>
<td>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 &quot;For non-emergency personnel&quot;.</td>
</tr>
</tbody>
</table>

6.2 Environmental precautions

<table>
<thead>
<tr>
<th>Product</th>
<th>Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABLE K electroporation competent cells</td>
<td>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).</td>
</tr>
<tr>
<td>pUC18 Control Plasmid DNA</td>
<td>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).</td>
</tr>
</tbody>
</table>

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**ABLE K Electroporation-Competent Cells, Part Number 200162**

**SECTION 6: Accidental release measures**

### 6.3 Methods and material for containment and cleaning up

**Methods for cleaning up**

- **ABLE K 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.

- **pUC18 Control Plasmid DNA**
  - 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**
  - **ABLE K electroporation competent cells**
    - Put on appropriate personal protective equipment (see Section 8).
  - **pUC18 Control Plasmid DNA**
    - Put on appropriate personal protective equipment (see Section 8).

- **Advice on general occupational hygiene**
  - **ABLE K 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.
  - **pUC18 Control Plasmid DNA**
    - 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

- **ABLE K 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.

- **pUC18 Control Plasmid DNA**
  - Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

- **ABLE K electroporation competent cells**
  - Industrial applications, Professional applications.

- **pUC18 Control Plasmid DNA**
  - Industrial applications, Professional applications.

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SECTION 7: Handling and storage

<table>
<thead>
<tr>
<th>Industrial sector specific solutions</th>
<th>ABLE K electroporation competent cells</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

**Occupational exposure limits**

No exposure limit value known.

**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 available.

**PNECs**

No PNECs available.

8.2 Exposure controls

**Appropriate engineering controls**

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

**Hygiene measures**

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

**Eye/face protection**

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

**Skin protection**

**Hand protection**

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

**Body protection**

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

**Other skin protection**

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

**Respiratory protection**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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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

<table>
<thead>
<tr>
<th>Property</th>
<th>ABLE K electroporation competent cells</th>
<th>pUC18 Control Plasmid DNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odour</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
<td>7.5</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available.</td>
<td>0°C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available.</td>
<td>100°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>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>
</tbody>
</table>

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8/14
### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>ABLE K electroporation competent cells</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative density</td>
<td>ABLE K electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>ABLE K electroporation competent cells</td>
<td>Soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>ABLE K electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>ABLE K electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>ABLE K electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>ABLE K electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>ABLE K electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>ABLE K electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### 9.2 Other information

No additional information.

### SECTION 10: Stability and reactivity

<table>
<thead>
<tr>
<th>Subsection</th>
<th>ABLE K electroporation competent cells</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1 Reactivity</td>
<td>ABLE K electroporation competent cells</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>10.2 Chemical stability</td>
<td>ABLE K electroporation competent cells</td>
<td>The product is stable.</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>10.3 Possibility of hazardous reactions</td>
<td>ABLE K electroporation competent cells</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td></td>
<td>pUC18 Control Plasmid DNA</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
</tbody>
</table>

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SECTION 10: Stability and reactivity

10.4 Conditions to avoid

- ABLE K electroporation competent cells
- pUC18 Control Plasmid DNA

No specific data.

10.5 Incompatible materials

- ABLE K electroporation competent cells
- pUC18 Control Plasmid DNA

May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products

- ABLE K electroporation competent cells
- pUC18 Control Plasmid DNA

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

Not available.

Irritation/Corrosion

Conclusion/Summary

- Not available.

Sensitiser

Conclusion/Summary

- Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

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

- ABLE K electroporation competent cells
- pUC18 Control Plasmid DNA

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation

- ABLE K electroporation competent cells
- pUC18 Control Plasmid DNA

No known significant effects or critical hazards.

Ingestion

- ABLE K electroporation competent cells
- pUC18 Control Plasmid DNA

No known significant effects or critical hazards.

Skin contact

- ABLE K electroporation competent cells
- pUC18 Control Plasmid DNA

No known significant effects or critical hazards.

Eye contact

- ABLE K electroporation competent cells
- pUC18 Control Plasmid DNA

No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Date of issue/Date of revision

- 24/08/2015
### SECTION 11: Toxicological information

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</table>

### Toxicokinetics

**Absorption**

| ABLE K electroporation competent cells | pUC18 Control Plasmid DNA | Not available. | pUC18 Control Plasmid DNA | No specific data. | pUC18 Control Plasmid DNA | No specific data. |

### Date of issue/Date of revision

Date of issue/Date of revision: 24/08/2015
SECTION 11: Toxicological information

<table>
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<td>Other information</td>
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</table>

SECTION 12: Ecological information

12.1 Toxicity
Conclusion/Summary: Not available.

12.2 Persistence and degradability
Conclusion/Summary: 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 91/689/EEC.

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.

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SECTION 14: Transport information

Regulatory information

ADR/RID / IMDG / IATA : Not regulated.

14.6 Special precautions for user

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

14.7 Transport in bulk according to Annex II of MARPOL 73/78 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

Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

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 Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Japan : All components are listed or exempted.
Malaysia : Not determined.
New Zealand : All components are listed or exempted.

Date of issue/Date of revision : 24/08/2015
SECTION 15: Regulatory information

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<table>
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<tr>
<td>United States</td>
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</tbody>
</table>

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>
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Date of issue/Date of revision: 24/08/2015
Date of previous issue: 15/03/2013.
Version: 4

Notice to reader

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