SAFETY DATA SHEET

XL1-Blue MRF' Electroporation-Competent Cells, Part Number 200158

Section 1. Identification

Product identifier : XL1-Blue MRF' Electroporation-Competent Cells, Part Number 200158
Part No. (Chemical Kit) : 200158
Part No. : 200158
pUC 18 DNA Control Plasmid 200231-42

Relevant identified uses of the substance or mixture and uses advised against
Analytical reagent.
XL1-Blue MRF' electroporation competent cells 5 x 0.1 ml
pUC 18 DNA Control Plasmid 0.01 ml (0.1 ng/µl)

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture
Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.

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Version : 5
Section 2. Hazard(s) identification

**Disposal**: Not applicable.

**Supplemental label elements**

**Additional warning phrases**: Not applicable.

**Other hazards which do not result in classification**: None known.

Section 3. Composition and ingredient information

**Substance/mixture**: XL1-Blue MRF' electroporation competent cells

**CAS number/other identifiers**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>XL1-Blue MRF' electroporation competent cells</td>
<td>≤10</td>
<td>56-81-5</td>
</tr>
<tr>
<td>Glycerol</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.

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

Section 4. First aid measures

**Description of necessary first aid measures**

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

**Skin contact**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Section 4. First aid measures

Ingestion

**XL1-Blue MRF’ 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

**Eye contact**

**XL1-Blue MRF’ electroporation competent cells**
No known significant effects or critical hazards.

**pUC 18 DNA Control Plasmid**
No known significant effects or critical hazards.

**Inhalation**

**XL1-Blue MRF’ electroporation competent cells**
No known significant effects or critical hazards.

**pUC 18 DNA Control Plasmid**
No known significant effects or critical hazards.

**Skin contact**

**XL1-Blue MRF’ electroporation competent cells**
No known significant effects or critical hazards.

**pUC 18 DNA Control Plasmid**
No known significant effects or critical hazards.

**Ingestion**

**XL1-Blue MRF’ electroporation competent cells**
No known significant effects or critical hazards.

**pUC 18 DNA Control Plasmid**
No known significant effects or critical hazards.

Over-exposure signs/symptoms

**Eye contact**

**XL1-Blue MRF’ electroporation competent cells**
No specific data.

**pUC 18 DNA Control Plasmid**
No specific data.

**Inhalation**

**XL1-Blue MRF’ electroporation competent cells**
No specific data.

**pUC 18 DNA Control Plasmid**
No specific data.

**Skin contact**

**XL1-Blue MRF’ electroporation competent cells**
No specific data.

**pUC 18 DNA Control Plasmid**
No specific data.

**Ingestion**

**XL1-Blue MRF’ electroporation competent cells**
No specific data.

**pUC 18 DNA Control Plasmid**
No specific data.

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

**Notes to physician**

**XL1-Blue MRF’ electroporation competent cells**
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**pUC 18 DNA Control Plasmid**
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Date of issue/Date of revision : 26/09/2017  
Date of previous issue : 31/07/2015  
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3/13
### Section 4. First aid measures

| Protection of first-aiders | XL1-Blue MRF’ electroporation competent cells  
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

**No action shall be taken involving any personal risk or without suitable training.**

See toxicological information (Section 11)

### Section 5. Firefighting measures

#### Extinguishing media

| Suitable extinguishing media | XL1-Blue MRF’ electroporation competent cells  
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No specific treatment.</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

Use an extinguishing agent suitable for the surrounding fire.

| Unsuitable extinguishing media | XL1-Blue MRF’ electroporation competent cells  
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No specific treatment.</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

None known.

#### Specific hazards arising from the chemical

| XL1-Blue MRF’ electroporation competent cells  
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>

In a fire or if heated, a pressure increase will occur and the container may burst.

#### Hazardous thermal decomposition products

| XL1-Blue MRF’ electroporation competent cells  
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition products may include the following materials:</td>
</tr>
</tbody>
</table>
| carbon dioxide  
| carbon monoxide  
| No specific data. |

| pUC 18 DNA Control Plasmid  
|-----------------------------------------------|

#### Special protective actions for fire-fighters

| XL1-Blue MRF’ electroporation competent cells  
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<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>

| pUC 18 DNA Control Plasmid  
|-----------------------------------------------|

| 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

| XL1-Blue MRF’ electroporation competent cells  
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<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>

| 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.
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:
- **XL1-Blue MRF’ electroporation competent cells**
  - No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

For emergency responders:
- **XL1-Blue MRF’ electroporation competent cells**
  - If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

For emergency responders:
- **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".

Environmental precautions:
- **XL1-Blue MRF’ electroporation competent cells**
  - Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Environmental precautions:
- **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).

Methods for cleaning up

Methods for cleaning up:
- **XL1-Blue MRF’ 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.

Methods for cleaning up:
- **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:
- **XL1-Blue MRF’ electroporation competent cells**
  - Put on appropriate personal protective equipment (see Section 8).

Protective measures:
- **pUC 18 DNA Control Plasmid**
  - Put on appropriate personal protective equipment (see Section 8).
Section 7. Handling and storage

Advice on general occupational hygiene: XL1-Blue MRF' electroporation competent cells

Potential 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.

Conditions for safe storage, including any incompatibilities:

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

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Safe Work Australia (Australia, 1/2014).</td>
</tr>
<tr>
<td>Glycerol</td>
<td>TWA: 10 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures
Section 8. Exposure controls and personal protection

**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**: 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**

**Physical state**: XL1-Blue MRF' Electroporation-Competent Cells, Liquid.

**pUC 18 DNA Control Plasmid**: Liquid.

**Colour**: XL1-Blue MRF' Electroporation-Competent Cells, Not available.

**pUC 18 DNA Control Plasmid**: Not available.

**Odour**: XL1-Blue MRF' Electroporation-Competent Cells, Not available.

**pUC 18 DNA Control Plasmid**: Not available.

**Odour threshold**: XL1-Blue MRF' Electroporation-Competent Cells, Not available.

**pUC 18 DNA Control Plasmid**: Not available.

**pH**: XL1-Blue MRF' Electroporation-Competent Cells, Not available.

**pUC 18 DNA Control Plasmid**: 7.5

**Melting point**: XL1-Blue MRF' Electroporation-Competent Cells, Not available.

**pUC 18 DNA Control Plasmid**: 0°C (32°F)

**Boiling point**: XL1-Blue MRF' Electroporation-Competent Cells, Not available.

**pUC 18 DNA Control Plasmid**: 100°C (212°F)
## Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flash point</strong></td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Lower and upper explosive limits</strong> (flammable) limits</td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

## Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>pUC 18 DNA Control Plasmid</th>
<th>No specific test data related to reactivity available for this product or its ingredients.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>XL1-Blue MRF’ electroporation competent cells</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
</tbody>
</table>
Section 10. Stability and reactivity

Chemical stability: The product is stable.

Possibility of hazardous reactions:
- XL1-Blue MRF' electroporation competent cells
- pUC 18 DNA Control Plasmid
  Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:
- XL1-Blue MRF' electroporation competent cells
- pUC 18 DNA Control Plasmid
  No specific data.

Incompatible materials:
- XL1-Blue MRF' electroporation competent cells
- pUC 18 DNA Control Plasmid
  May react or be incompatible with oxidising materials.

Hazardous decomposition products:
- XL1-Blue MRF' electroporation competent cells
- 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>XL1-Blue MRF' electroporation competent cells</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</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>XL1-Blue MRF' electroporation competent cells</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitisation
Not available.

Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

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Section 11. Toxicological information

**Teratogenicity**
Not available.

**Specific target organ toxicity (single exposure)**
Not available.

**Specific target organ toxicity (repeated exposure)**
Not available.

**Aspiration hazard**
Not available.

**Information on likely routes of exposure**

<table>
<thead>
<tr>
<th>Route</th>
<th>Substance</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Potential acute health effects**

<table>
<thead>
<tr>
<th>Route</th>
<th>Substance</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Route</th>
<th>Substance</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>XL1-Blue MRF' electroporation competent cells, pUC 18 DNA Control Plasmid</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Short term exposure**

<table>
<thead>
<tr>
<th>Effects</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential immediate effects</td>
<td>Not available.</td>
</tr>
<tr>
<td>Potential delayed effects</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects
Not available.

General

XL1-Blue MRF' electroporation competent cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Carcinogenicity

XL1-Blue MRF' electroporation competent cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Mutagenicity

XL1-Blue MRF' electroporation competent cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Teratogenicity

XL1-Blue MRF' electroporation competent cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Developmental effects

XL1-Blue MRF' electroporation competent cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Fertility effects

XL1-Blue MRF' electroporation competent cells
pUC 18 DNA Control Plasmid
No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates
Not available.

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>XL1-Blue MRF' electroporation competent cells</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</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>XL1-Blue MRF' electroporation competent cells</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>93 % - 30 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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Section 12. Ecological information

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;OW&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>XL1-Blue MRF&lt;sup&gt;™&lt;/sup&gt; 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<sub>OC</sub>) | 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 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. 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

**ADG / IMDG / IATA**

Not regulated as Dangerous Goods according to the ADG Code.

**Special precautions for user**

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

**Transport in bulk according to Annex II of Marpol and the IBC Code**

Not available.

Section 15. Regulatory information

**Standard Uniform Schedule of Medicine and Poisons**

Not regulated.

**Model Work Health and Safety Regulations - Scheduled Substances**

No listed substance

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol (Annexes A, B, C, E)**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

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Date of previous issue: 31/07/2015  
Version: 5  
12/13
Section 15. Regulatory information

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

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<thead>
<tr>
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<th>Details</th>
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<tr>
<td>Australia</td>
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Section 16. Any other relevant information

**History**

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<tr>
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**Key to abbreviations**

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ADG</td>
<td>Australian Dangerous Goods</td>
</tr>
<tr>
<td>ATE</td>
<td>Acute Toxicity Estimate</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration Factor</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System of Classification and Labelling of Chemicals</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IBC</td>
<td>Intermediate Bulk Container</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods</td>
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<tr>
<td>LogPow</td>
<td>Logarithm of the octanol/water partition coefficient</td>
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<tr>
<td>NOHSC</td>
<td>National Occupational Health and Safety Commission</td>
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<td>SUSMP</td>
<td>Standard Uniform Schedule of Medicine and Poisons</td>
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<td>UN</td>
<td>United Nations</td>
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**Procedure used to derive the classification**

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**References**

Not available.

*Indicates information that has changed from previously issued version.*

**Notice to reader**

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