Section 1. Identification

Product identifier : PathDetect Elk1 trans Reporting System, Part number 219005
Part No. (Chemical Kit) : 219005
Part No. : pFR-Luc Plasmid (Reporter Plasmid) 219050-51
pFA2-Elk1 Plasmid 219061-51
pFC2-dbd 219055-51
pFC-MEK1 Plasmid Positive Control 219064-51

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

Analytical reagent.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFR-Luc Plasmid (Reporter Plasmid)</td>
<td>0.05 ml (50 μg 1 μg/μl)</td>
</tr>
<tr>
<td>pFA2-Elk1 Plasmid</td>
<td>0.2 ml</td>
</tr>
<tr>
<td>pFC2-dbd</td>
<td>0.02 ml (2 μg 25ng/μl)</td>
</tr>
<tr>
<td>pFC-MEK1 Plasmid Positive Control</td>
<td>0.2 ml (5 μg 25 μg/μl)</td>
</tr>
</tbody>
</table>

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 : pFR-Luc Plasmid (Reporter Plasmid) No signal word.
No signal word. pFA2-Elk1 Plasmid
No signal word. pFC2-dbd
No signal word. pFC-MEK1 Plasmid Positive Control

Hazard statements : pFR-Luc Plasmid (Reporter Plasmid) No known significant effects or critical hazards.
No known significant effects or critical hazards. pFA2-Elk1 Plasmid
No known significant effects or critical hazards. pFC2-dbd
No known significant effects or critical hazards. pFC-MEK1 Plasmid Positive Control

Precautionary statements

Prevention : pFR-Luc Plasmid (Reporter Plasmid) Not applicable.
Not applicable. pFA2-Elk1 Plasmid
Not applicable. pFC2-dbd
Not applicable. pFC-MEK1 Plasmid Positive Control

Date of issue/Date of revision : 28/11/2016
Date of previous issue : 26/04/2013.
Version : 3
Section 2. Hazard(s) identification

**Response:**
- pFR-Luc Plasmid (Reporter Plasmid)
  - Not applicable.
- pFA2-Elk1 Plasmid
  - Not applicable.
- pFC2-dbd
  - Not applicable.
- pFC-MEK1 Plasmid Positive Control
  - Not applicable.

**Storage:**
- pFR-Luc Plasmid (Reporter Plasmid)
  - Not applicable.
- pFA2-Elk1 Plasmid
  - Not applicable.
- pFC2-dbd
  - Not applicable.
- pFC-MEK1 Plasmid Positive Control
  - Not applicable.

**Disposal:**
- pFR-Luc Plasmid (Reporter Plasmid)
  - Not applicable.
- pFA2-Elk1 Plasmid
  - Not applicable.
- pFC2-dbd
  - Not applicable.
- pFC-MEK1 Plasmid Positive Control
  - Not applicable.

**Supplemental label elements:**
- pFR-Luc Plasmid (Reporter Plasmid)
  - Not applicable.
- pFA2-Elk1 Plasmid
  - Not applicable.
- pFC2-dbd
  - Not applicable.
- pFC-MEK1 Plasmid Positive Control
  - Not applicable.

**Other hazards which do not result in classification:**
- pFR-Luc Plasmid (Reporter Plasmid)
  - None known.
- pFA2-Elk1 Plasmid
  - None known.
- pFC2-dbd
  - None known.
- pFC-MEK1 Plasmid Positive Control
  - None known.

Section 3. Composition and ingredient information

**Substance/mixture:**
- pFR-Luc Plasmid (Reporter Plasmid)
  - Mixture
- pFA2-Elk1 Plasmid
  - Mixture
- pFC2-dbd
  - Mixture
- pFC-MEK1 Plasmid Positive Control
  - Mixture

**CAS number/other identifiers:**
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 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:**
- pFR-Luc Plasmid (Reporter 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.
- pFA2-Elk1 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.
- pFC2-dbd
  - 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.
## Section 4. First aid measures

<table>
<thead>
<tr>
<th>Substance</th>
<th>Inhalation</th>
<th>Skin contact</th>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFR-Luc Plasmid (Reporter Plasmid)</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
<td>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.</td>
</tr>
<tr>
<td>pFA2-Elk1 Plasmid</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
<td>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.</td>
</tr>
<tr>
<td>pFC2-dbd</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
<td>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.</td>
</tr>
<tr>
<td>pFC-MEK1 Plasmid Positive Control</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
<td>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.</td>
</tr>
</tbody>
</table>

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects
## Section 4. First aid measures

<table>
<thead>
<tr>
<th>Condition</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>pFA2-Elk1 Plasmid</th>
<th>pFC2-dbd</th>
<th>pFC-MEK1 Plasmid Positive Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

### Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Condition</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>pFA2-Elk1 Plasmid</th>
<th>pFC2-dbd</th>
<th>pFC-MEK1 Plasmid Positive Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

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

**Notes to physician**

- pFR-Luc Plasmid (Reporter Plasmid) Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- pFA2-Elk1 Plasmid Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- pFC2-dbd Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- pFC-MEK1 Plasmid Positive Control Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Date of issue/Date of revision**: 28/11/2016

**Date of previous issue**: 26/04/2013

**Version**: 3
Section 4. First aid measures

Protection of first-aiders:

- **pFR-Luc Plasmid (Reporter Plasmid)**: No action shall be taken involving any personal risk or without suitable training.
- **pFA2-Elk1 Plasmid**: No action shall be taken involving any personal risk or without suitable training.
- **pFC2-dbd**: No action shall be taken involving any personal risk or without suitable training.
- **pFC-MEK1 Plasmid Positive Control**: No action shall be taken involving any personal risk or without suitable training.

Specific treatments:

- **pFR-Luc Plasmid (Reporter Plasmid)**: No specific treatment.
- **pFA2-Elk1 Plasmid**: No specific treatment.
- **pFC2-dbd**: No specific treatment.
- **pFC-MEK1 Plasmid Positive Control**: No specific treatment.

See toxicological information (Section 11)

Section 5. Firefighting measures

**Extinguishing media**

**Suitable extinguishing media**:

- **pFR-Luc Plasmid (Reporter Plasmid)**: Use an extinguishing agent suitable for the surrounding fire.
- **pFA2-Elk1 Plasmid**: Use an extinguishing agent suitable for the surrounding fire.
- **pFC2-dbd**: Use an extinguishing agent suitable for the surrounding fire.
- **pFC-MEK1 Plasmid Positive Control**: Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**:

- **pFR-Luc Plasmid (Reporter Plasmid)**: None known.
- **pFA2-Elk1 Plasmid**: None known.
- **pFC2-dbd**: None known.
- **pFC-MEK1 Plasmid Positive Control**: None known.

**Specific hazards arising from the chemical**:

- **pFR-Luc Plasmid (Reporter Plasmid)**: In a fire or if heated, a pressure increase will occur and the container may burst.
- **pFA2-Elk1 Plasmid**: In a fire or if heated, a pressure increase will occur and the container may burst.
- **pFC2-dbd**: In a fire or if heated, a pressure increase will occur and the container may burst.
- **pFC-MEK1 Plasmid Positive Control**: In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products**:

- **pFR-Luc Plasmid (Reporter Plasmid)**: No specific data.
- **pFA2-Elk1 Plasmid**: No specific data.
- **pFC2-dbd**: No specific data.
- **pFC-MEK1 Plasmid Positive Control**: No specific data.

**Special protective actions for fire-fighters**:

- **pFR-Luc Plasmid (Reporter 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.
- **pFA2-Elk1 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.
- **pFC2-dbd**: 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.
Section 5. Firefighting measures

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

<table>
<thead>
<tr>
<th>Plasmid Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFC-MEK1 Plasmid Positive Control</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>pFR-Luc Plasmid (Reporter 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>
<tr>
<td>pFA2-Elk1 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>
<tr>
<td>pFC2-dbd</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>
<tr>
<td>pFC-MEK1 Plasmid Positive Control</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>Plasmid Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFR-Luc Plasmid (Reporter 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 spilt material. Put on appropriate personal protective equipment.</td>
</tr>
<tr>
<td>pFA2-Elk1 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 spilt material. Put on appropriate personal protective equipment.</td>
</tr>
<tr>
<td>pFC2-dbd</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>pFC-MEK1 Plasmid Positive Control</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>Plasmid Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFR-Luc Plasmid (Reporter Plasmid)</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>pFA2-Elk1 Plasmid</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>pFC2-dbd</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>
## Section 6. Accidental release measures

<table>
<thead>
<tr>
<th>Environmental precautions</th>
<th>Methods and material for containment and cleaning up</th>
</tr>
</thead>
</table>
| pFR-Luc Plasmid (Reporter Plasmid) | **Methods for cleaning up**
| 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). | **pFR-Luc Plasmid (Reporter 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. | 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. |
| pFA2-Elk1 Plasmid | **pFA2-Elk1 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). | 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. |
| pFC2-dbdc | **pFC2-dbdc**
| 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). | 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. |
| pFC-MEK1 Plasmid Positive Control | **pFC-MEK1 Plasmid Positive Control**
| 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). | 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

<table>
<thead>
<tr>
<th>Protective measures</th>
<th>Precautions for safe handling</th>
</tr>
</thead>
</table>
| pFR-Luc Plasmid (Reporter Plasmid) | **pFR-Luc Plasmid (Reporter Plasmid)**
| Put on appropriate personal protective equipment (see Section 8). | Put on appropriate personal protective equipment (see Section 8). |
| pFA2-Elk1 Plasmid | **pFA2-Elk1 Plasmid**
| Put on appropriate personal protective equipment (see Section 8). | Put on appropriate personal protective equipment (see Section 8). |
| pFC2-dbdc | **pFC2-dbdc**
| Put on appropriate personal protective equipment (see Section 8). | Put on appropriate personal protective equipment (see Section 8). |
| pFC-MEK1 Plasmid Positive Control | **pFC-MEK1 Plasmid Positive Control**
| Put on appropriate personal protective equipment | Put on appropriate personal protective equipment |
Section 7. Handling and storage

Advice on general occupational hygiene:

pFR-Luc Plasmid (Reporter 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.

pFA2-Elk1 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.

pFC2-dbd

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.

pFC-MEK1 Plasmid Positive Control

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:

pFR-Luc Plasmid (Reporter Plasmid)

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

pFA2-Elk1 Plasmid

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

pFC2-dbd

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.

pFC-MEK1 Plasmid Positive Control

Store in accordance with local regulations. Store in original container protected from direct sunlight in a...
Section 7. Handling and storage

- 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.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

None.

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

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

- pFA2-EElk1 Plasmid | Liquid.
- pFC2-dbd | Liquid.
- pFC-MEK1 Plasmid Positive Control | Liquid.
## Section 9. Physical and chemical properties

### Colour
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

### Odour
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

### Odour threshold
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

### pH
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

### Melting point
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

### Boiling point
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

### Flash point
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

### Evaporation rate
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

### Flammability (solid, gas)
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

### Lower and upper explosive (flammable) limits
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

---

**Date of issue/Date of revision**: 28/11/2016  
**Date of previous issue**: 26/04/2013  
**Version**: 3
Section 9. Physical and chemical properties

Vapour pressure
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

Vapour density
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

Relative density
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

Solubility
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

Partition coefficient: n-octanol/water
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

Auto-ignition temperature
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

Decomposition temperature
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

Viscosity
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

Section 10. Stability and reactivity

Reactivity
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

No specific test data related to reactivity available for this product or its ingredients.
## Section 10. Stability and reactivity

### Chemical stability
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

The product is stable.

### Possibility of hazardous reactions
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

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

### Conditions to avoid
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

No specific data.

### Incompatible materials
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

May react or be incompatible with oxidising materials.

### Hazardous decomposition products
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity
Not available.

#### Irritation/Corrosion
Not available.

#### Sensitisation
Not available.

#### Mutagenicity
Not available.

#### Carcinogenicity
Not available.
Section 11. Toxicological information

Reproductive toxicity
Not available.

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

- **Inhalation:**
  - pFA2-Elk1 Plasmid: Not available.
  - pFC2-dbd: Not available.
  - pFC-MEK1 Plasmid Positive Control: Not available.

- **Ingestion:**
  - pFA2-Elk1 Plasmid: Not available.
  - pFC2-dbd: Not available.
  - pFC-MEK1 Plasmid Positive Control: Not available.

- **Skin contact:**
  - pFA2-Elk1 Plasmid: Not available.
  - pFC2-dbd: Not available.
  - pFC-MEK1 Plasmid Positive Control: Not available.

- **Eye contact:**
  - pFR-Luc Plasmid (Reporter Plasmid): No specific data.
  - pFA2-Elk1 Plasmid: No specific data.
  - pFC2-dbd: No specific data.
  - pFC-MEK1 Plasmid Positive Control: No specific data.

Potential acute health effects

Eye contact:
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-Elk1 Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-MEK1 Plasmid Positive Control: No known significant effects or critical hazards.

Inhalation:
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-Elk1 Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-MEK1 Plasmid Positive Control: No known significant effects or critical hazards.

Skin contact:
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-Elk1 Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-MEK1 Plasmid Positive Control: No known significant effects or critical hazards.

Ingestion:
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-Elk1 Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-MEK1 Plasmid Positive Control: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact:
- pFR-Luc Plasmid (Reporter Plasmid): No specific data.
- pFA2-Elk1 Plasmid: No specific data.
- pFC2-dbd: No specific data.
- pFC-MEK1 Plasmid Positive Control: No specific data.

Date of issue/Date of revision: 28/11/2016
Date of previous issue: 26/04/2013
Version: 3
Section 11. Toxicological information

**Inhalation**
- **pFR-Luc Plasmid (Reporter Plasmid)**: No specific data.
- **pFA2-Elk1 Plasmid**: No specific data.
- **pFC2-dbd**: No specific data.
- **pFC-MEK1 Plasmid Positive Control**: No specific data.

**Skin contact**
- **pFR-Luc Plasmid (Reporter Plasmid)**: No specific data.
- **pFA2-Elk1 Plasmid**: No specific data.
- **pFC2-dbd**: No specific data.
- **pFC-MEK1 Plasmid Positive Control**: No specific data.

**Ingestion**
- **pFR-Luc Plasmid (Reporter Plasmid)**: No specific data.
- **pFA2-Elk1 Plasmid**: No specific data.
- **pFC2-dbd**: No specific data.
- **pFC-MEK1 Plasmid Positive Control**: No specific data.

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

#### Short term exposure

**Potential immediate effects**: Not available.

**Potential delayed effects**: Not available.

#### Long term exposure

**Potential immediate effects**: Not available.

**Potential delayed effects**: Not available.

**Potential chronic health effects**: Not available.

**General**
- **pFR-Luc Plasmid (Reporter Plasmid)**: No known significant effects or critical hazards.
- **pFA2-Elk1 Plasmid**: No known significant effects or critical hazards.
- **pFC2-dbd**: No known significant effects or critical hazards.
- **pFC-MEK1 Plasmid Positive Control**: No known significant effects or critical hazards.

**Carcinogenicity**
- **pFR-Luc Plasmid (Reporter Plasmid)**: No known significant effects or critical hazards.
- **pFA2-Elk1 Plasmid**: No known significant effects or critical hazards.
- **pFC2-dbd**: No known significant effects or critical hazards.
- **pFC-MEK1 Plasmid Positive Control**: No known significant effects or critical hazards.

**Mutagenicity**
- **pFR-Luc Plasmid (Reporter Plasmid)**: No known significant effects or critical hazards.
- **pFA2-Elk1 Plasmid**: No known significant effects or critical hazards.
- **pFC2-dbd**: No known significant effects or critical hazards.
- **pFC-MEK1 Plasmid Positive Control**: No known significant effects or critical hazards.

**Teratogenicity**
- **pFR-Luc Plasmid (Reporter Plasmid)**: No known significant effects or critical hazards.
- **pFA2-Elk1 Plasmid**: No known significant effects or critical hazards.
- **pFC2-dbd**: No known significant effects or critical hazards.
- **pFC-MEK1 Plasmid Positive Control**: No known significant effects or critical hazards.
Section 11. Toxicological information

Developmental effects:
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control
No known significant effects or critical hazards.

Fertility effects:
- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-Elk1 Plasmid
- pFC2-dbd
- pFC-MEK1 Plasmid Positive Control
No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates
Not available.

Section 12. Ecological information

Toxicity
Not available.

Persistence and degradability
Not available.

Bioaccumulative potential
Not available.

Mobility in soil
Soil/water partition coefficient (KOC):
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

Regulatory 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

Australia inventory (AICS) : All components are listed or exempted.

International regulations

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

Montreal Protocol (Annexes A, B, C, E)
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

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

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

International lists

National inventory
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.
Malaysia : Not determined.
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.
Turkey : Not determined.
United States : All components are listed or exempted.
Section 16. Any other relevant information

History

| Date of issue/Date of revision | 28/11/2016 |
| Date of previous issue         | 26/04/2013 |
| Version                        | 3          |

Key to abbreviations:
- ADG = Australian Dangerous Goods
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- NOHSC = National Occupational Health and Safety Commission
- SUSMP = Standard Uniform Schedule of Medicine and Poisons
- 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

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