Section 1. Identification

Product identifier : PathDetect CRE cis Reporting System, Part Number 219075
Part No. (Chemical Kit) : 219075
Part No. : pCRE-Luc Plasmid 219076-51
          pFC-PKA Plasmid 219070-51

Relevant identified uses of the substance or mixture and uses advised against
Analytical reagent.

pCRE-Luc Plasmid 0.05 ml (50 µg 1 µg/µl)
pFC-PKA Plasmid 0.2 ml (5 µg 25 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 : pCRE-Luc Plasmid No signal word.
              pFC-PKA Plasmid No signal word.

Hazard statements : pCRE-Luc Plasmid No known significant effects or critical hazards.
                    pFC-PKA Plasmid No known significant effects or critical hazards.

Precautionary statements

Prevention : pCRE-Luc Plasmid Not applicable.
              pFC-PKA Plasmid Not applicable.

Response : pCRE-Luc Plasmid Not applicable.
           pFC-PKA Plasmid Not applicable.

Storage : pCRE-Luc Plasmid Not applicable.
         pFC-PKA Plasmid Not applicable.

Disposal : pCRE-Luc Plasmid Not applicable.
           pFC-PKA Plasmid Not applicable.

Supplemental label elements

Additional warning phrases : pCRE-Luc Plasmid Not applicable.
                            pFC-PKA Plasmid Not applicable.

Other hazards which do not result in classification : pCRE-Luc Plasmid None known.
                                                 pFC-PKA Plasmid None known.
Section 3. Composition and ingredient information

Substance/mixture : pCRE-Luc Plasmid  Mixture
pFC-PKA Plasmid  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**
- pCRE-Luc 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.
- pFC-PKA Plasmid
  - Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation**
- pCRE-Luc Plasmid
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- pFC-PKA Plasmid
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact**
- pCRE-Luc Plasmid
  - Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- pFC-PKA Plasmid
  - Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**
- pCRE-Luc 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.
- pFC-PKA 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**
- pCRE-Luc Plasmid
  - No known significant effects or critical hazards.
- pFC-PKA Plasmid
  - No known significant effects or critical hazards.

**Inhalation**
- pCRE-Luc Plasmid
  - No known significant effects or critical hazards.
- pFC-PKA Plasmid
  - No known significant effects or critical hazards.

**Skin contact**
- pCRE-Luc Plasmid
  - No known significant effects or critical hazards.
- pFC-PKA Plasmid
  - No known significant effects or critical hazards.

**Ingestion**
- pCRE-Luc Plasmid
  - No known significant effects or critical hazards.
- pFC-PKA Plasmid
  - No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

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Section 4. First aid measures

<table>
<thead>
<tr>
<th>Protection of first-aiders</th>
<th>pCRE-Luc Plasmid</th>
<th>No action shall be taken involving any personal risk or without suitable training.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pFC-PKA Plasmid</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

**Notes to physician**

<table>
<thead>
<tr>
<th>pCRE-Luc Plasmid</th>
<th>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFC-PKA Plasmid</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
</tbody>
</table>

**Specific treatments**

<table>
<thead>
<tr>
<th>pCRE-Luc Plasmid</th>
<th>No specific treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFC-PKA Plasmid</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

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

**Protection of first-aiders**

<table>
<thead>
<tr>
<th>pCRE-Luc Plasmid</th>
<th>No action shall be taken involving any personal risk or without suitable training.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFC-PKA Plasmid</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

**See toxicological information (Section 11)**

Section 5. Firefighting measures

**Extinguishing media**

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>pCRE-Luc Plasmid</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pFC-PKA Plasmid</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unsuitable extinguishing media</th>
<th>pCRE-Luc Plasmid</th>
<th>None known.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pFC-PKA Plasmid</td>
<td>None known.</td>
</tr>
</tbody>
</table>

**Specific hazards arising from the chemical**

<table>
<thead>
<tr>
<th>pCRE-Luc Plasmid</th>
<th>In a fire or if heated, a pressure increase will occur and the container may burst.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFC-PKA Plasmid</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>

**Hazardous thermal decomposition products**

<table>
<thead>
<tr>
<th>pCRE-Luc Plasmid</th>
<th>No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFC-PKA Plasmid</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

**Special protective actions for fire-fighters**

<table>
<thead>
<tr>
<th>pCRE-Luc Plasmid</th>
<th>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFC-PKA Plasmid</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

**Special protective equipment for fire-fighters**

<table>
<thead>
<tr>
<th>pCRE-Luc Plasmid</th>
<th>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFC-PKA Plasmid</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
</tbody>
</table>
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : pCRE-Luc Plasmid
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill material. Put on appropriate personal protective equipment.

pFC-PKA Plasmid
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill material. Put on appropriate personal protective equipment.

For emergency responders : pCRE-Luc 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".

pFC-PKA 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 : pCRE-Luc 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).

pFC-PKA 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 and material for containment and cleaning up

Methods for cleaning up : pCRE-Luc 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.

pFC-PKA 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 : pCRE-Luc Plasmid
Put on appropriate personal protective equipment (see Section 8).

pFC-PKA Plasmid
Put on appropriate personal protective equipment (see Section 8).
Section 7. Handling and storage

Advice on general occupational hygiene

pCRE-Luc 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.

pFC-PKA Plasmid
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

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
None.

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

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.
Section 8. Exposure controls and personal protection

**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**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>pCRE-Luc Plasmid</th>
<th>Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pFC-PKA Plasmid</td>
<td>Liquid.</td>
</tr>
</tbody>
</table>

**Colour**: pCRE-Luc Plasmid Not available.

**Odour**: pCRE-Luc Plasmid Not available.

**Odour threshold**: pCRE-Luc Plasmid Not available.

**pH**: pCRE-Luc Plasmid 7.5

**Melting point**: pCRE-Luc Plasmid 0°C (32°F)

**Boiling point**: pCRE-Luc Plasmid 100°C (212°F)

**Flash point**: pCRE-Luc Plasmid Not available.

**Evaporation rate**: pCRE-Luc Plasmid Not available.

**Flammability (solid, gas)**: pCRE-Luc Plasmid Not applicable.

**Lower and upper explosive (flammable) limits**: pCRE-Luc Plasmid Not available.

**Vapour pressure**: pCRE-Luc Plasmid Not available.

**Vapour density**: pCRE-Luc Plasmid Not available.

**Relative density**: pCRE-Luc Plasmid Not available.

**Solubility**: pCRE-Luc Plasmid Easily soluble in the following materials: cold water and hot water.

**Partition coefficient: n-octanol/water**: pCRE-Luc Plasmid Not available.

pFC-PKA Plasmid Not available.
Section 9. Physical and chemical properties

**Auto-ignition temperature**
- pCRE-Luc Plasmid: Not available.
- pFC-PKA Plasmid: Not available.

**Decomposition temperature**
- pCRE-Luc Plasmid: Not available.
- pFC-PKA Plasmid: Not available.

**Viscosity**
- pCRE-Luc Plasmid: Not available.
- pFC-PKA Plasmid: Not available.

## Section 10. Stability and reactivity

**Reactivity**
- pCRE-Luc Plasmid: No specific test data related to reactivity available for this product or its ingredients.
- pFC-PKA Plasmid: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**
- pCRE-Luc Plasmid: The product is stable.
- pFC-PKA Plasmid: The product is stable.

**Possibility of hazardous reactions**
- pCRE-Luc Plasmid: Under normal conditions of storage and use, hazardous reactions will not occur.
- pFC-PKA Plasmid: Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**
- pCRE-Luc Plasmid: No specific data.
- pFC-PKA Plasmid: No specific data.

**Incompatible materials**
- pCRE-Luc Plasmid: May react or be incompatible with oxidising materials.
- pFC-PKA Plasmid: May react or be incompatible with oxidising materials.

**Hazardous decomposition products**
- pCRE-Luc Plasmid: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- pFC-PKA 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**
Not available.

**Irritation/Corrosion**
Not available.

**Sensitisation**
Not available.

**Mutagenicity**
Not available.

**Carcinogenicity**
Not available.

**Reproductive toxicity**
Not available.

**Teratogenicity**
Not available.

**Specific target organ toxicity (single exposure)**

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Section 11. Toxicological information

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>pCRE-Luc Plasmid</th>
<th>pFC-PKA Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Potential acute health effects

Symptoms related to the physical, chemical and toxicological characteristics

<table>
<thead>
<tr>
<th>Route</th>
<th>pCRE-Luc Plasmid</th>
<th>pFC-PKA Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>No specific data.</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

| Potential immediate effects | Not available. |
| Potential delayed effects  | Not available. |

Long term exposure

| Potential immediate effects | Not available. |
| Potential delayed effects  | Not available. |

Potential chronic health effects

| General          | pCRE-Luc Plasmid | No known significant effects or critical hazards. |
| Carcinogenicity  | pCRE-Luc Plasmid | No known significant effects or critical hazards. |
| Mutagenicity     | pCRE-Luc Plasmid | No known significant effects or critical hazards. |
| Teratogenicity   | pCRE-Luc Plasmid | No known significant effects or critical hazards. |
| Developmental effects | pCRE-Luc Plasmid | No known significant effects or critical hazards. |
| Fertility effects | pCRE-Luc Plasmid | No known significant effects or critical hazards. |
|                  | pFC-PKA Plasmid | No known significant effects or critical hazards. |

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Section 11. Toxicological information

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

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.

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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)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Canada</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>China</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Europe</td>
<td>All components are listed or exempted.</td>
</tr>
</tbody>
</table>
| 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. |
| Thailand           | Not determined.                  |
| Turkey             | Not determined.                  |
| United States      | All components are listed or exempted. |
| Viet Nam           | Not determined.                  |

Section 16. Any other relevant information

History

- Date of issue/Date of revision: 31/12/2017
- Date of previous issue: 30/09/2015.
- Version: 3.01

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
Section 16. Any other relevant information

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.

Notice to reader

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