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

1.1 Product identifier

Product name : PathDetect NF-kB cis Reporting System, Part Number 219077
Part No. (Kit) : 219077
Part No. : pNF-kB-Luc Plasmid 219078-51
pFC-MEKK Plasmid 219058-51

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

<table>
<thead>
<tr>
<th>Identified uses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical reagent. pNF-kB-Luc Plasmid</td>
<td>0.05 ml (50 µg 1 µg/µl)</td>
</tr>
<tr>
<td>pFC-MEKK Plasmid (Positive Control)</td>
<td>0.2 ml (5 µg 25 ng/µl)</td>
</tr>
</tbody>
</table>

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : pNF-kB-Luc Plasmid Mixture
pFC-MEKK Plasmid Mixture
(Positive Control)

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

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

2.2 Label elements

Signal word : pNF-kB-Luc Plasmid No signal word.
pFC-MEKK Plasmid No signal word.
(Positive Control)

Hazard statements : pNF-kB-Luc Plasmid No known significant effects or critical hazards.
pFC-MEKK Plasmid No known significant effects or critical hazards.
(Positive Control)

Precautionary statements

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SECTION 2: Hazards identification

Prevention: pNF-kB-Luc Plasmid Not applicable.
   pFC-MEKK Plasmid (Positive Control) Not applicable.
Response: pNF-kB-Luc Plasmid Not applicable.
   pFC-MEKK Plasmid (Positive Control) Not applicable.
Storage: pNF-kB-Luc Plasmid Not applicable.
   pFC-MEKK Plasmid (Positive Control) Not applicable.
Disposal: pNF-kB-Luc Plasmid Not applicable.
   pFC-MEKK Plasmid (Positive Control) Not applicable.

Supplemental label elements:
Tactile warning of danger: pNF-kB-Luc Plasmid Not applicable.
   pFC-MEKK Plasmid (Positive Control) Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market, and use of certain dangerous substances, mixtures and articles:

2.3 Other hazards:
   Other hazards which do not result in classification:
   pNF-kB-Luc Plasmid None known.
   pFC-MEKK Plasmid (Positive Control) None known.

SECTION 3: Composition/information on ingredients

3.1 Substances:
   pNF-kB-Luc Plasmid Mixture
   pFC-MEKK Plasmid (Positive Control) Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type:
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy

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

SECTION 4: First aid measures

4.1 Description of first aid measures:
   Eye contact:
   pNF-kB-Luc Plasmid
   pFC-MEKK Plasmid (Positive Control)
   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.

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SECTION 4: First aid measures

**Inhalation**
- **pNF-kB-Luc Plasmid**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- **pFC-MEKK Plasmid (Positive Control)**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact**
- **pNF-kB-Luc Plasmid**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- **pFC-MEKK Plasmid (Positive Control)**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**
- **pNF-kB-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-MEKK Plasmid (Positive Control)**: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

**Protection of first-aiders**
- **pNF-kB-Luc Plasmid**: No action shall be taken involving any personal risk or without suitable training.
- **pFC-MEKK Plasmid (Positive Control)**: No action shall be taken involving any personal risk or without suitable training.

**4.2 Most important symptoms and effects, both acute and delayed**

**Potential acute health effects**
- **Eye contact**: pNF-kB-Luc Plasmid, pFC-MEKK Plasmid (Positive Control)
  - No known significant effects or critical hazards.
- **Inhalation**: pNF-kB-Luc Plasmid, pFC-MEKK Plasmid (Positive Control)
  - No known significant effects or critical hazards.
- **Skin contact**: pNF-kB-Luc Plasmid, pFC-MEKK Plasmid (Positive Control)
  - No known significant effects or critical hazards.
- **Ingestion**: pNF-kB-Luc Plasmid, pFC-MEKK Plasmid (Positive Control)
  - No known significant effects or critical hazards.

**Over-exposure signs/symptoms**
- **Eye contact**: pNF-kB-Luc Plasmid, pFC-MEKK Plasmid (Positive Control)
  - No specific data.
- **Inhalation**: pNF-kB-Luc Plasmid, pFC-MEKK Plasmid (Positive Control)
  - No specific data.
- **Skin contact**: pNF-kB-Luc Plasmid, pFC-MEKK Plasmid (Positive Control)
  - No specific data.
- **Ingestion**: pNF-kB-Luc Plasmid, pFC-MEKK Plasmid (Positive Control)
  - No specific data.
**SECTION 4: First aid measures**

4.3 Indication of any immediate medical attention and special treatment needed

<table>
<thead>
<tr>
<th>Notes to physician</th>
<th>Specific treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td>pNF-kB-Luc Plasmid</td>
<td>pNF-kB-Luc Plasmid</td>
</tr>
<tr>
<td>Treat symptomatically.</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td>pFC-MEK Plasmid (Positive Control)</td>
<td>pFC-MEK Plasmid (Positive Control)</td>
</tr>
<tr>
<td>Treat symptomatically.</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

**SECTION 5: Firefighting measures**

5.1 Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>pNF-kB-Luc Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td>Unsuitable extinguishing media</td>
<td>pFC-MEK Plasmid (Positive Control)</td>
</tr>
<tr>
<td></td>
<td>None known.</td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th>Hazards from the substance or mixture</th>
<th>pNF-kB-Luc Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td>Hazardous combustion products</td>
<td>pFC-MEK Plasmid (Positive Control)</td>
</tr>
<tr>
<td></td>
<td>None known.</td>
</tr>
</tbody>
</table>

5.3 Advice for firefighters

<table>
<thead>
<tr>
<th>Special precautions for firefighters</th>
<th>pNF-kB-Luc Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td></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></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>Special protective equipment for firefighters</td>
<td>pNF-kB-Luc Plasmid</td>
</tr>
<tr>
<td></td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</td>
</tr>
<tr>
<td></td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.</td>
</tr>
</tbody>
</table>

**SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures

<table>
<thead>
<tr>
<th>For non-emergency personnel</th>
<th>pNF-kB-Luc Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td></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.</td>
</tr>
<tr>
<td></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.</td>
</tr>
</tbody>
</table>

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SECTION 6: Accidental release measures

For emergency responders:
- **pNF-kB-Luc Plasmid**: Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
- **pFC-MEKK Plasmid (Positive Control)**: 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".

6.2 Environmental precautions:
- **pNF-kB-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-MEKK 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).

6.3 Methods and material for containment and cleaning up:
- **Methods for cleaning up**:
  - **pNF-kB-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-MEKK Plasmid (Positive Control)**: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections:
- **See Section 1** for emergency contact information.
- **See Section 8** for information on appropriate personal protective equipment.
- **See Section 13** for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:
- **Protective measures**: Put on appropriate personal protective equipment (see Section 8).
- **Advice on general occupational hygiene**: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

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## SECTION 7: Handling and storage

### Storage

<table>
<thead>
<tr>
<th>Plasmid</th>
<th>Handling and Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>pNF-kB-Luc Plasmid</td>
<td>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.</td>
</tr>
<tr>
<td>pFC-MEKK Plasmid (Positive Control)</td>
<td>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.</td>
</tr>
</tbody>
</table>

### 7.3 Specific end use(s)

**Recommendations**

- **pNF-kB-Luc Plasmid**: Industrial applications, Professional applications.
- **pFC-MEKK Plasmid (Positive Control)**: Industrial applications, Professional applications.

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

#### Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following:

- European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy)
- European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents)
- European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents)

Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

No DNELs/DMELs available.

#### PNECs

No PNECs available.

### 8.2 Exposure controls

#### Appropriate engineering controls

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

#### Individual protection measures
SECTION 8: Exposure controls/personal protection

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.

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Physical state</th>
<th>pNF-kB-Luc Plasmid</th>
<th>Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>pNF-kB-Luc Plasmid</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>pNF-kB-Luc Plasmid</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td>pNF-kB-Luc Plasmid</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>pNF-kB-Luc Plasmid</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>pNF-kB-Luc Plasmid</td>
<td>0°C</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>pNF-kB-Luc Plasmid</td>
<td>100°C</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>pNF-kB-Luc Plasmid</td>
<td>Not available.</td>
<td></td>
</tr>
</tbody>
</table>

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SECTION 9: Physical and chemical properties

Evaporation rate

<table>
<thead>
<tr>
<th>Material</th>
<th>pNF-kB-Luc Plasmid</th>
<th>pFC-MEKK Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>pNF-kB-Luc Plasmid</td>
<td>pFC-MEKK Plasmid</td>
</tr>
<tr>
<td></td>
<td>Easily soluble in</td>
<td>Easily soluble in</td>
</tr>
<tr>
<td></td>
<td>the following</td>
<td>the following</td>
</tr>
<tr>
<td></td>
<td>materials: cold</td>
<td>materials: cold</td>
</tr>
<tr>
<td></td>
<td>water and hot</td>
<td>water and hot</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

<table>
<thead>
<tr>
<th>Material</th>
<th>pNF-kB-Luc Plasmid</th>
<th>pFC-MEKK Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No specific test</td>
<td>No specific test</td>
</tr>
<tr>
<td></td>
<td>data related to</td>
<td>data related to</td>
</tr>
<tr>
<td></td>
<td>reactivity</td>
<td>reactivity</td>
</tr>
<tr>
<td></td>
<td>available for</td>
<td>available for</td>
</tr>
<tr>
<td></td>
<td>this product</td>
<td>this product</td>
</tr>
<tr>
<td></td>
<td>or its</td>
<td>or its</td>
</tr>
<tr>
<td></td>
<td>ingredients.</td>
<td>ingredients.</td>
</tr>
</tbody>
</table>

10.2 Chemical stability

<table>
<thead>
<tr>
<th>Material</th>
<th>pNF-kB-Luc Plasmid</th>
<th>pFC-MEKK Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>The product is</td>
<td>The product is</td>
</tr>
<tr>
<td></td>
<td>stable.</td>
<td>stable.</td>
</tr>
</tbody>
</table>

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## SECTION 10: Stability and reactivity

### 10.3 Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Material</th>
<th>Under normal conditions of storage and use, hazardous reactions will not occur.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pNF-kB-Luc Plasmid</td>
<td></td>
</tr>
<tr>
<td>pFC-MEKK Plasmid</td>
<td></td>
</tr>
<tr>
<td>pNF-kB-Luc Plasmid (Positive Control)</td>
<td></td>
</tr>
</tbody>
</table>

### 10.4 Conditions to avoid

<table>
<thead>
<tr>
<th>Material</th>
<th>No specific data.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pNF-kB-Luc Plasmid</td>
<td></td>
</tr>
<tr>
<td>pFC-MEKK Plasmid</td>
<td></td>
</tr>
<tr>
<td>pNF-kB-Luc Plasmid (Positive Control)</td>
<td></td>
</tr>
</tbody>
</table>

### 10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Material</th>
<th>May react or be incompatible with oxidising materials.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pNF-kB-Luc Plasmid</td>
<td></td>
</tr>
<tr>
<td>pFC-MEKK Plasmid</td>
<td></td>
</tr>
<tr>
<td>pNF-kB-Luc Plasmid (Positive Control)</td>
<td></td>
</tr>
</tbody>
</table>

### 10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Material</th>
<th>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pNF-kB-Luc Plasmid</td>
<td></td>
</tr>
<tr>
<td>pFC-MEKK Plasmid</td>
<td></td>
</tr>
<tr>
<td>pNF-kB-Luc Plasmid (Positive Control)</td>
<td></td>
</tr>
</tbody>
</table>

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

- Not available.

#### Acute toxicity estimates

- Not available.

#### Irritation/Corrosion

- Conclusion/Summary: Not available.

#### Sensitiser

- Conclusion/Summary: Not available.

#### 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>Material</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pNF-kB-Luc Plasmid</td>
<td></td>
</tr>
<tr>
<td>pFC-MEKK Plasmid</td>
<td></td>
</tr>
<tr>
<td>pNF-kB-Luc Plasmid (Positive Control)</td>
<td></td>
</tr>
</tbody>
</table>

#### Potential acute health effects

<table>
<thead>
<tr>
<th>Route</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>pNF-kB-Luc Plasmid</td>
</tr>
<tr>
<td></td>
<td>pFC-MEKK Plasmid (Positive Control)</td>
</tr>
<tr>
<td>Ingestion</td>
<td>pNF-kB-Luc Plasmid</td>
</tr>
<tr>
<td></td>
<td>pFC-MEKK Plasmid (Positive Control)</td>
</tr>
<tr>
<td>Skin contact</td>
<td>pNF-kB-Luc Plasmid</td>
</tr>
<tr>
<td></td>
<td>pFC-MEKK Plasmid (Positive Control)</td>
</tr>
<tr>
<td>Eye contact</td>
<td>pNF-kB-Luc Plasmid</td>
</tr>
<tr>
<td></td>
<td>pFC-MEKK Plasmid (Positive Control)</td>
</tr>
</tbody>
</table>

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

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SECTION 11: Toxicological information

### Inhalation
- pNF-kB-Luc Plasmid
- pFC-MEKK Plasmid (Positive Control)
  - No specific data.

### Ingestion
- pNF-kB-Luc Plasmid
- pFC-MEKK Plasmid (Positive Control)
  - No specific data.

### Skin contact
- pNF-kB-Luc Plasmid
- pFC-MEKK Plasmid (Positive Control)
  - No specific data.

### Eye contact
- pNF-kB-Luc Plasmid
- pFC-MEKK 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.

### General
- pNF-kB-Luc Plasmid
- pFC-MEKK Plasmid (Positive Control)
  - No known significant effects or critical hazards.

#### Carcinogenicity
- pNF-kB-Luc Plasmid
- pFC-MEKK Plasmid (Positive Control)
  - No known significant effects or critical hazards.

#### Mutagenicity
- pNF-kB-Luc Plasmid
- pFC-MEKK Plasmid (Positive Control)
  - No known significant effects or critical hazards.

#### Teratogenicity
- pNF-kB-Luc Plasmid
- pFC-MEKK Plasmid (Positive Control)
  - No known significant effects or critical hazards.

#### Developmental effects
- pNF-kB-Luc Plasmid
- pFC-MEKK Plasmid (Positive Control)
  - No known significant effects or critical hazards.

#### Fertility effects
- pNF-kB-Luc Plasmid
- pFC-MEKK Plasmid (Positive Control)
  - No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity
- Conclusion/Summary: Not available.

12.2 Persistence and degradability
- Not available.

12.3 Bioaccumulative potential
- Not available.

Date of issue/Date of revision: 31/12/2017
SECTION 12: Ecological information

12.4 Mobility in soil
   Soil/water partition coefficient ($K_{OC}$): Not available.
   Mobility: Not available.

12.5 Results of PBT and vPvB assessment
   PBT: Not applicable.
   vPvB: Not applicable.

12.6 Other adverse effects: No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
   Product: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
   Hazardous waste: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

   Packaging: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

   Special precautions: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

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

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
   EU Regulation (EC) No. 1907/2006 (REACH)
   Annex XIV - List of substances subject to authorisation
      Annex XIV
         None of the components are listed.
      Substances of very high concern
         None of the components are listed.

Date of issue/Date of revision: 31/12/2017
SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other EU regulations

Ozone depleting substances (1005/2009/EU)
Not applicable.

Prior Informed Consent (PIC) (649/2012/EU)
Not applicable.

Seveso Directive
This product is not controlled under the Seveso Directive.

International regulations

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

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

Stockholm Convention on Persistent Organic Pollutants
Not listed.

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

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

Australia : All components are listed or exempted.
Canada  : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.
Japan : Japan inventory (ENCS): All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
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 : Not determined.
Thailand : Not determined.
Turkey : Not determined.
United States : All components are listed or exempted.
Viet Nam : Not determined.

15.2 Chemical safety assessment
This product contains substances for which Chemical Safety Assessments might still be required.

Date of issue/Date of revision : 31/12/2017
SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms:
- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

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

**Full text of abbreviated H statements**

Not applicable.

**Full text of classifications [CLP/GHS]**

Not applicable.

**Date of issue/Date of revision:** 31/12/2017

**Date of previous issue:** No previous validation.

**Version:** 1

**Notice to reader**

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