SAFETY DATA SHEET
PathDetect TARE cis Reporting System, Part Number 219095

Section 1. Identification

1.1 Product identifier
Product name : PathDetect TARE cis Reporting System, Part Number 219095
Part No. (Chemical Kit) : 219095
Part No. : pCIS-CK Negative Control Plasmid 219090-51
           pTARE-Luc 219095-51
Validation date : 12/31/2017

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses : Analytical reagent.
               pCIS-CK Negative Control Plasmid 0.05 ml (50 µg  1 µg/µl)
               pTARE-Luc 0.05 ml (50 µg  1 µg/µl)

1.3 Details of the supplier of the safety data sheet
Supplier/Manufacturer : Agilent Technologies, Inc.
                       5301 Stevens Creek Blvd
                       Santa Clara, CA 95051, USA
                       800-227-9770

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture
OSHA/HCS status : pCIS-CK Negative Control Plasmid
           pTARE-Luc
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Not classified.

2.2 GHS label elements
Signal word : pCIS-CK Negative Control Plasmid
              pTARE-Luc
No signal word.

Hazard statements : pCIS-CK Negative Control Plasmid
                    pTARE-Luc
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Precautionary statements
Prevention : pCIS-CK Negative Control Plasmid
             pTARE-Luc
Not applicable.
Not applicable.
Section 2. Hazards identification

Response: pCIS-CK Negative Control Plasmid Not applicable. pTARE-Luc Not applicable.

Storage: pCIS-CK Negative Control Plasmid Not applicable. pTARE-Luc Not applicable.

Disposal: pCIS-CK Negative Control Plasmid Not applicable. pTARE-Luc Not applicable.

Supplemental label elements: pCIS-CK Negative Control Plasmid None known. pTARE-Luc None known.

2.3 Other hazards

Hazard not otherwise classified: pCIS-CK Negative Control Plasmid None known. pTARE-Luc None known.

Section 3. Composition/information on ingredients

Substance/mixture: pCIS-CK Negative Control Plasmid Mixture pTARE-Luc Mixture

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

4.1 Description of necessary first aid measures

Eye contact: pCIS-CK Negative Control 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.

pTARE-Luc
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: pCIS-CK Negative Control Plasmid
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

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

Skin contact: pCIS-CK Negative Control Plasmid
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

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

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

pTARE-Luc
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.

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Section 4. First aid measures

4.2 Most important symptoms/effects, acute and delayed

**Potential acute health effects**

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<thead>
<tr>
<th>Condition</th>
<th>pCIS-CK Negative Control Plasmid</th>
<th>pTARE-Luc</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td>No known significant effects or critical hazards.</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>No known significant effects or critical hazards.</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>No known significant effects or critical hazards.</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>No known significant effects or critical hazards.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

**Protection of first-aiders**

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

**Notes to physician**

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**

No specific treatment.

**Over-exposure signs/symptoms**

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

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

**Notes to physician**

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Protection of first-aiders**

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

**Specific treatments**

No specific treatment.

Section 5. Fire-fighting measures

5.1 Extinguishing media

**Suitable extinguishing media**

Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**

None known.

5.2 Special hazards arising from the substance or mixture
Section 5. Fire-fighting measures

Specific hazards arising from the chemical
- pCIS-CK Negative Control Plasmid
- pTARE-Luc

Hazardous thermal decomposition products
- pCIS-CK Negative Control Plasmid
- pTARE-Luc

5.3 Advice for firefighters

Special protective actions for fire-fighters
- pCIS-CK Negative Control Plasmid
- pTARE-Luc

Special protective equipment for fire-fighters
- pCIS-CK Negative Control Plasmid
- pTARE-Luc

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
- pCIS-CK Negative Control Plasmid
- pTARE-Luc

For emergency responders
- pCIS-CK Negative Control Plasmid
- pTARE-Luc

6.2 Environmental precautions
- pCIS-CK Negative Control Plasmid
- pTARE-Luc

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Section 6. Accidental release measures

caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

- **pCIS-CK Negative Control Plasmid**
  - Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

- **pTARE-Luc**
  - 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

7.1 Precautions for safe handling

Protection measures

- **pCIS-CK Negative Control Plasmid**
  - Put on appropriate personal protective equipment (see Section 8).

- **pTARE-Luc**
  - Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

- **pCIS-CK Negative Control 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.

- **pTARE-Luc**
  - 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

- **pCIS-CK Negative Control 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

- **pTARE-Luc**
  - 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.

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Section 7. Handling and storage

7.3 Specific end use(s)

Recommendations: pCIS-CK Negative Control Plasmid, pTARE-Luc

Industrial sector specific solutions: pCIS-CK Negative Control Plasmid, pTARE-Luc

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>None.</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls

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

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.

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

9.1 Information on basic physical and chemical properties

**Appearance**

- Physical state:
  - pCIS-CK Negative Control Plasmid: Liquid.
  - pTARE-Luc: Liquid.

- Color:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Odor:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Odor threshold:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- pH:
  - pCIS-CK Negative Control Plasmid: 7.5
  - pTARE-Luc: 7.5

- Melting point:
  - pCIS-CK Negative Control Plasmid: 0°C (32°F)
  - pTARE-Luc: 0°C (32°F)

- Boiling point:
  - pCIS-CK Negative Control Plasmid: 100°C (212°F)
  - pTARE-Luc: 100°C (212°F)

- Flash point:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Evaporation rate:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Flammability (solid, gas):
  - pCIS-CK Negative Control Plasmid: Not applicable.
  - pTARE-Luc: Not applicable.

- Lower and upper explosive (flammable) limits:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Vapor pressure:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Vapor density:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Relative density:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Solubility:
  - pCIS-CK Negative Control Plasmid: Easily soluble in the following materials: cold water and hot water.
  - pTARE-Luc: Easily soluble in the following materials: cold water and hot water.

- Partition coefficient: n-octanol/water:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Auto-ignition temperature:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Decomposition temperature:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

- Viscosity:
  - pCIS-CK Negative Control Plasmid: Not available.
  - pTARE-Luc: Not available.

Section 10. Stability and reactivity

10.1 Reactivity

- pCIS-CK Negative Control Plasmid: No specific test data related to reactivity available for this product or its ingredients.
- pTARE-Luc: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

- pCIS-CK Negative Control Plasmid: The product is stable.
- pTARE-Luc: The product is stable.

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Section 10. Stability and reactivity

10.3 Possibility of hazardous reactions

**pCIS-CK Negative Control Plasmid**: Under normal conditions of storage and use, hazardous reactions will not occur.

**pTARE-Luc**: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

**pCIS-CK Negative Control Plasmid**: No specific data.

**pTARE-Luc**: No specific data.

10.5 Incompatible materials

**pCIS-CK Negative Control Plasmid**: May react or be incompatible with oxidizing materials.

**pTARE-Luc**: May react or be incompatible with oxidizing materials.

10.6 Hazardous decomposition products

**pCIS-CK Negative Control Plasmid**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**pTARE-Luc**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

**Acute toxicity**

Not available.

**Irritation/Corrosion**

Not available.

**Sensitization**

Not available.

**Carcinogenicity**

Not available.

**Mutagenicity**

Not available.

**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.

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Section 11. Toxicological information

Information on the likely routes of exposure

**Inhalation**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

**Skin contact**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

**Ingestion**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

Potential acute health effects

**Eye contact**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

**Ingestion**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**
- pCIS-CK Negative Control Plasmid
  - No specific data.
- pTARE-Luc
  - No specific data.

**Skin contact**
- pCIS-CK Negative Control Plasmid
  - No specific data.
- pTARE-Luc
  - No specific data.

**Ingestion**
- pCIS-CK Negative Control Plasmid
  - No specific data.
- pTARE-Luc
  - No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure**
- Potential immediate effects
  - Not available.

**Long term exposure**
- Potential immediate effects
  - Not available.
- Potential delayed effects
  - Not available.

Potential chronic health effects

**General**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

**Carcinogenicity**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

**Mutagenicity**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

**Teratogenicity**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

**Developmental effects**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

**Fertility effects**
- pCIS-CK Negative Control Plasmid
  - No known significant effects or critical hazards.
- pTARE-Luc
  - No known significant effects or critical hazards.

Numerical measures of toxicity

**Acute toxicity estimates**
- Not available.

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Section 12. Ecological information

12.1 Toxicity
Not available.

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential
Not available.

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods
Disposal methods : The generation of waste should be avoided or minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal regulations

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

Clean Water Act (CWA) 311: Edetic acid

SARA 302/304
Composition/information on ingredients
No products were found.

SARA 304 RQ
Not applicable.

SARA 311/312
Classification
pCIS-CK Negative Control Plasmid Not applicable.
pTARE-Luc Not applicable.

Composition/information on ingredients
No products were found.

State regulations

Massachusetts : None of the components are listed.
New York : None of the components are listed.
New Jersey : None of the components are listed.
Pennsylvania : None of the components are listed.

International regulations

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

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Section 15. Regulatory information

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.
Thailand: Not determined.
Turkey: Not determined.
United States: All components are listed or exempted.
Viet Nam: Not determined.

Section 16. Other information

**History**

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<thead>
<tr>
<th>Date of issue</th>
<th>12/31/2017</th>
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</thead>
<tbody>
<tr>
<td>Date of previous issue</td>
<td>09/30/2015</td>
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<td>Version</td>
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*Indicates information that has changed from previously issued version.*

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