SAFETY DATA SHEET

InterPlay C-terminal Mammalian TAP Vectors, Part Number 240102

Section 1. Identification

1.1 Product identifier
Product name : InterPlay C-terminal Mammalian TAP Vectors, Part Number 240102
Part no. (chemical kit) : 240102
Part no. :
- pCTAP-A Expression Vector 240102-51
- pCTAP-B Expression Vector 240102-52
- pCTAP-C Expression Vector 240102-53
- pNTAP-Mef2a Expression Control Vector 240101-55
- pCMV-Tag2-Mef2c Expression Control Vector 240101-54

Validation date : 8/21/2019

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

pCTAP-A Expression Vector 0.02 ml (20 μg 1 μg/μl)
pCTAP-B Expression Vector 0.02 ml (20 μg 1 μg/μl)
pCTAP-C Expression Vector 0.02 ml (20 μg 1 μg/μl)
pNTAP-Mef2a Expression Control Vector 0.03 ml (30 μg 1 μg/μl)
pCMV-Tag2-Mef2c Expression Control Vector 0.03 ml (30 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

1.4 Emergency telephone number
In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture
OSHA/HCS status : pCTAP-A Expression Vector
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.

pCTAP-B Expression Vector
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.

pCTAP-C Expression Vector
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.

pNTAP-Mef2a Expression
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.

Date of issue : 08/21/2019
Section 2. Hazards identification

**Classification of the substance or mixture**
Not classified.

### 2.2 GHS label elements

**Signal word**
- pCTAP-A Expression Vector: No signal word.
- pCTAP-B Expression Vector: No signal word.
- pCTAP-C Expression Vector: No signal word.
- pNTAP-Mef2a Expression Control Vector: No signal word.
- pCMV-Tag2-Mef2c Expression Control Vector: No signal word.

**Hazard statements**
- pCTAP-A Expression Vector: No known significant effects or critical hazards.
- pCTAP-B Expression Vector: No known significant effects or critical hazards.
- pCTAP-C Expression Vector: No known significant effects or critical hazards.
- pNTAP-Mef2a Expression Control Vector: No known significant effects or critical hazards.
- pCMV-Tag2-Mef2c Expression Control Vector: No known significant effects or critical hazards.

**Precautionary statements**

**Prevention**
- pCTAP-A Expression Vector: Not applicable.
- pCTAP-B Expression Vector: Not applicable.
- pCTAP-C Expression Vector: Not applicable.
- pNTAP-Mef2a Expression Control Vector: Not applicable.
- pCMV-Tag2-Mef2c Expression Control Vector: Not applicable.

**Response**
- pCTAP-A Expression Vector: Not applicable.
- pCTAP-B Expression Vector: Not applicable.
- pCTAP-C Expression Vector: Not applicable.
- pNTAP-Mef2a Expression Control Vector: Not applicable.
- pCMV-Tag2-Mef2c Expression Control Vector: Not applicable.

**Storage**
- pCTAP-A Expression Vector: Not applicable.
- pCTAP-B Expression Vector: Not applicable.
- pCTAP-C Expression Vector: Not applicable.
- pNTAP-Mef2a Expression Control Vector: Not applicable.
- pCMV-Tag2-Mef2c Expression Control Vector: Not applicable.

**Disposal**

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.

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.
Section 2. Hazards identification

**Supplemental label elements**
- pCTAP-A Expression Vector: None known.
- pCTAP-B Expression Vector: None known.
- pCTAP-C Expression Vector: None known.
- pNTAP-Mef2a Expression Control Vector: None known.
- pCMV-Tag2-Mef2c Expression Control Vector: None known.

**Hazards not otherwise classified**
- pCTAP-A Expression Vector: None known.
- pCTAP-B Expression Vector: None known.
- pCTAP-C Expression Vector: None known.
- pNTAP-Mef2a Expression Control Vector: None known.
- pCMV-Tag2-Mef2c Expression Control Vector: None known.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>pCTAP-A Expression Vector</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pCTAP-B Expression Vector</td>
<td>Mixture</td>
</tr>
<tr>
<td></td>
<td>pCTAP-C Expression Vector</td>
<td>Mixture</td>
</tr>
<tr>
<td></td>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>Mixture</td>
</tr>
<tr>
<td></td>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>Mixture</td>
</tr>
</tbody>
</table>

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**
- pCTAP-A Expression Vector: 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.
- pCTAP-B Expression Vector: 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.
- pCTAP-C Expression Vector: 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.
- pNTAP-Mef2a Expression Control Vector: 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.
- pCMV-Tag2-Mef2c Expression Control Vector: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.
## Section 4. First aid measures

<table>
<thead>
<tr>
<th></th>
<th>pCTAP-A Expression Vector</th>
<th>pCTAP-B Expression Vector</th>
<th>pCTAP-C Expression Vector</th>
<th>pNTAP-Mef2a Expression Control Vector</th>
<th>pCMV-Tag2-Mef2c Expression Control Vector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
<td></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>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td></td>
<td></td>
<td></td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. 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>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td></td>
<td></td>
<td></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>
<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>

Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation**

- pCTAP-A Expression Vector: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- pCTAP-B Expression Vector: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- pCTAP-C Expression Vector: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- pNTAP-Mef2a Expression Control Vector: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- pCMV-Tag2-Mef2c Expression Control Vector: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact**

- pCTAP-A Expression Vector: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- pCTAP-B Expression Vector: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- pCTAP-C Expression Vector: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- pNTAP-Mef2a Expression Control Vector: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- pCMV-Tag2-Mef2c Expression Control Vector: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**

- pCTAP-A Expression Vector: 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.
- pCTAP-B Expression Vector: 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.
- pCTAP-C Expression Vector: 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.
- pNTAP-Mef2a Expression Control Vector: 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.
Section 4. First aid measures

pCMV-Tag2-Mef2c Expression Control Vector

unless directed to do so by medical personnel. Get medical attention if symptoms occur.
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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

| Eye contact | pCTAP-A Expression Vector | No known significant effects or critical hazards. |
| pCTAP-B Expression Vector | No known significant effects or critical hazards. |
| pCTAP-C Expression Vector | No known significant effects or critical hazards. |
| pCTAP-A Expression Vector | No known significant effects or critical hazards. |
| pCTAP-B Expression Vector | No known significant effects or critical hazards. |
| pCTAP-C Expression Vector | No known significant effects or critical hazards. |
| pNTAP-Mef2a Expression Control Vector | No known significant effects or critical hazards. |
| pCMV-Tag2-Mef2c Expression Control Vector | No known significant effects or critical hazards. |

| Inhalation | pCTAP-A Expression Vector | No known significant effects or critical hazards. |
| pCTAP-B Expression Vector | No known significant effects or critical hazards. |
| pCTAP-C Expression Vector | No known significant effects or critical hazards. |
| pNTAP-Mef2a Expression Control Vector | No known significant effects or critical hazards. |
| pCMV-Tag2-Mef2c Expression Control Vector | No known significant effects or critical hazards. |

| Skin contact | pCTAP-A Expression Vector | No known significant effects or critical hazards. |
| pCTAP-B Expression Vector | No known significant effects or critical hazards. |
| pCTAP-C Expression Vector | No known significant effects or critical hazards. |
| pNTAP-Mef2a Expression Control Vector | No known significant effects or critical hazards. |
| pCMV-Tag2-Mef2c Expression Control Vector | No known significant effects or critical hazards. |

| Ingestion | pCTAP-A Expression Vector | No known significant effects or critical hazards. |
| pCTAP-B Expression Vector | No known significant effects or critical hazards. |
| pCTAP-C Expression Vector | No known significant effects or critical hazards. |
| pNTAP-Mef2a Expression Control Vector | No known significant effects or critical hazards. |
| pCMV-Tag2-Mef2c Expression Control Vector | No known significant effects or critical hazards. |

Over-exposure signs/symptoms

| Eye contact | pCTAP-A Expression Vector | No specific data. |
| pCTAP-B Expression Vector | No specific data. |
| pCTAP-C Expression Vector | No specific data. |
| pNTAP-Mef2a Expression Control Vector | No specific data. |
| pCMV-Tag2-Mef2c Expression Control Vector | No specific data. |

| Inhalation | pCTAP-A Expression Vector | No specific data. |
| pCTAP-B Expression Vector | No specific data. |
| pCTAP-C Expression Vector | No specific data. |
| pNTAP-Mef2a Expression Control Vector | No specific data. |
| pCMV-Tag2-Mef2c Expression Control Vector | No specific data. |
# Section 4. First aid measures

### Skin contact
<table>
<thead>
<tr>
<th>Vector</th>
<th>First aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

### Ingestion
<table>
<thead>
<tr>
<th>Vector</th>
<th>First aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

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

### Notes to physician
<table>
<thead>
<tr>
<th>Vector</th>
<th>First aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</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>Vector</th>
<th>First aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

### Protection of first-aiders
<table>
<thead>
<tr>
<th>Vector</th>
<th>First aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</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. Fire-fighting measures

## 5.1 Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>pCTAP-A Expression Vector</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-B Expression Vector</td>
<td></td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td></td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td></td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td></td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unsuitable extinguishing media</th>
<th>pCTAP-A Expression Vector</th>
<th>None known.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-B Expression Vector</td>
<td></td>
<td>None known.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td></td>
<td>None known.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td></td>
<td>None known.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td></td>
<td>None known.</td>
</tr>
</tbody>
</table>

## 5.2 Special hazards arising from the substance or mixture

### Specific hazards arising from the chemical

| pCTAP-A Expression Vector | In a fire or if heated, a pressure increase will occur and the container may burst. |
| pCTAP-B Expression Vector | In a fire or if heated, a pressure increase will occur and the container may burst. |
| pCTAP-C Expression Vector | In a fire or if heated, a pressure increase will occur and the container may burst. |
| pNTAP-Mef2a Expression Control Vector | In a fire or if heated, a pressure increase will occur and the container may burst. |
| pCMV-Tag2-Mef2c Expression Control Vector | In a fire or if heated, a pressure increase will occur and the container may burst. |

### Hazardous thermal decomposition products

| pCTAP-A Expression Vector | No specific data. |
| pCTAP-B Expression Vector | No specific data. |
| pCTAP-C Expression Vector | No specific data. |
| pNTAP-Mef2a Expression Control Vector | No specific data. |
| pCMV-Tag2-Mef2c Expression Control Vector | No specific data. |

## 5.3 Advice for firefighters

### Special protective actions for fire-fighters

| pCTAP-A Expression Vector | 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. |
| pCTAP-B Expression Vector | 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. |
| pCTAP-C Expression Vector | 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. |
| pNTAP-Mef2a Expression Control Vector | 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. |
| pCMV-Tag2-Mef2c Expression | 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. Fire-fighting measures

<table>
<thead>
<tr>
<th>Special protective equipment for fire-fighters</th>
<th>Control Vector</th>
<th>pCTAP-A Expression Vector</th>
<th>pCTAP-B Expression Vector</th>
<th>pCTAP-C Expression Vector</th>
<th>pNTAP-Mef2a Expression Control Vector</th>
<th>pCMV-Tag2-Mef2c Expression Control Vector</th>
</tr>
</thead>
<tbody>
<tr>
<td>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>
<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>
<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>
<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>
<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>
<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>
<td></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>pCTAP-A Expression Vector</th>
<th>pCTAP-B Expression Vector</th>
<th>pCTAP-C Expression Vector</th>
<th>pNTAP-Mef2a Expression Control Vector</th>
<th>pCMV-Tag2-Mef2c Expression Control Vector</th>
</tr>
</thead>
<tbody>
<tr>
<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 spilled material. Put on appropriate personal protective equipment.</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 spilled material. Put on appropriate personal protective equipment.</td>
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</tr>
</tbody>
</table>

**Date of issue:** 08/21/2019
### Section 6. Accidental release measures

**For emergency responders:**

- **pCTAP-A Expression Vector**
  - If specialized 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".
- **pCTAP-B Expression Vector**
  - If specialized 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".
- **pCTAP-C Expression Vector**
  - If specialized 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".
- **pNTAP-Mef2a Expression Control Vector**
  - If specialized 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".
- **pCMV-Tag2-Mef2c Expression Control Vector**
  - If specialized 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**

- **pCTAP-A Expression Vector**
  - Avoid dispersal of spilled 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).
- **pCTAP-B Expression Vector**
  - Avoid dispersal of spilled 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).
- **pCTAP-C Expression Vector**
  - Avoid dispersal of spilled 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).
- **pNTAP-Mef2a Expression Control Vector**
  - Avoid dispersal of spilled 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).
- **pCMV-Tag2-Mef2c Expression Control Vector**
  - Avoid dispersal of spilled 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 materials for containment and cleaning up**

**Methods for cleaning up**

- **pCTAP-A Expression Vector**
  - 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.
- **pCTAP-B Expression Vector**
  - 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...
Section 6. Accidental release measures

inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

pCTAP-C Expression Vector
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.

pNTAP-Mef2a Expression Control Vector
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.

pCMV-Tag2-Mef2c Expression Control Vector
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

<table>
<thead>
<tr>
<th>Protective measures</th>
<th>Advice on general occupational hygiene</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>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.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>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.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>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.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>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.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>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.</td>
</tr>
</tbody>
</table>

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### Section 7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Vector Type</th>
<th>Storage Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, 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.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, 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.</td>
</tr>
</tbody>
</table>
7. Handling and storage

干、凉爽且通风良好的区域，远离不相容物质（见第10节）和食物和饮料。保持容器紧密封闭，直至准备使用。打开过的容器必须小心重新密封并保持直立，以防泄漏。不要将未标示的容器存放在不标示的地方。使用合适的容器来避免环境污染。见第10节不相容物质，了解在处理或使用前的注意事项。

7.3 Specific end use(s)

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Industrial sector specific solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>Industrial applications, Professional applications.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>Industrial applications, Professional applications.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>Industrial applications, Professional applications.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>Industrial applications, Professional applications.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>Industrial applications, Professional applications.</td>
</tr>
</tbody>
</table>

工业应用，专业应用。

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.

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.

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Section 8. Exposure controls/personal 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:
- pCTAP-A Expression Vector: Liquid.
- pCTAP-B Expression Vector: Liquid.
- pCTAP-C Expression Vector: Liquid.
- pNTAP-Mef2a Expression Control Vector: Liquid.
- pCMV-Tag2-Mef2c Expression Control Vector: Liquid.

Color:
- pCTAP-A Expression Vector: Not available.
- pCTAP-B Expression Vector: Not available.
- pCTAP-C Expression Vector: Not available.
- pNTAP-Mef2a Expression Control Vector: Not available.
- pCMV-Tag2-Mef2c Expression Control Vector: Not available.

Odor:
- pCTAP-A Expression Vector: Not available.
- pCTAP-B Expression Vector: Not available.
- pCTAP-C Expression Vector: Not available.
- pNTAP-Mef2a Expression Control Vector: Not available.
- pCMV-Tag2-Mef2c Expression Control Vector: Not available.

Odor threshold:
- pCTAP-A Expression Vector: Not available.
- pCTAP-B Expression Vector: Not available.
- pCTAP-C Expression Vector: Not available.
- pNTAP-Mef2a Expression Control Vector: Not available.
- pCMV-Tag2-Mef2c Expression Control Vector: Not available.

pH:
- pCTAP-A Expression Vector: 7.5
- pCTAP-B Expression Vector: 7.5
- pCTAP-C Expression Vector: 7.5
- pNTAP-Mef2a Expression Control Vector: 7.5
- pCMV-Tag2-Mef2c Expression Control Vector: 7.5
## Section 9. Physical and chemical properties

### Melting point

- **pCTAP-A Expression Vector**: 0°C (32°F)
- **pCTAP-B Expression Vector**: 0°C (32°F)
- **pCTAP-C Expression Vector**: 0°C (32°F)
- **pNTAP-Mef2a Expression Control Vector**: 0°C (32°F)
- **pCMV-Tag2-Mef2c Expression Control Vector**: 0°C (32°F)

### Boiling point

- **pCTAP-A Expression Vector**: 100°C (212°F)
- **pCTAP-B Expression Vector**: 100°C (212°F)
- **pCTAP-C Expression Vector**: 100°C (212°F)
- **pNTAP-Mef2a Expression Control Vector**: 100°C (212°F)
- **pCMV-Tag2-Mef2c Expression Control Vector**: 100°C (212°F)

### Flash point

- **pCTAP-A Expression Vector**: Not available.
- **pCTAP-B Expression Vector**: Not available.
- **pCTAP-C Expression Vector**: Not available.
- **pNTAP-Mef2a Expression Control Vector**: Not available.
- **pCMV-Tag2-Mef2c Expression Control Vector**: Not available.

### Evaporation rate

- **pCTAP-A Expression Vector**: Not available.
- **pCTAP-B Expression Vector**: Not available.
- **pCTAP-C Expression Vector**: Not available.
- **pNTAP-Mef2a Expression Control Vector**: Not available.
- **pCMV-Tag2-Mef2c Expression Control Vector**: Not available.

### Flammability (solid, gas)

- **pCTAP-A Expression Vector**: Not applicable.
- **pCTAP-B Expression Vector**: Not applicable.
- **pCTAP-C Expression Vector**: Not applicable.
- **pNTAP-Mef2a Expression Control Vector**: Not applicable.
- **pCMV-Tag2-Mef2c Expression Control Vector**: Not applicable.

### Lower and upper explosive (flammable) limits

- **pCTAP-A Expression Vector**: Not available.
- **pCTAP-B Expression Vector**: Not available.
- **pCTAP-C Expression Vector**: Not available.
- **pNTAP-Mef2a Expression Control Vector**: Not available.
- **pCMV-Tag2-Mef2c Expression Control Vector**: Not available.

### Vapor pressure

- **pCTAP-A Expression Vector**: Not available.
- **pCTAP-B Expression Vector**: Not available.
- **pCTAP-C Expression Vector**: Not available.
- **pNTAP-Mef2a Expression Control Vector**: Not available.
- **pCMV-Tag2-Mef2c Expression Control Vector**: Not available.

### Vapor density

- **pCTAP-A Expression Vector**: Not available.
- **pCTAP-B Expression Vector**: Not available.
- **pCTAP-C Expression Vector**: Not available.
- **pNTAP-Mef2a Expression Control Vector**: Not available.
- **pCMV-Tag2-Mef2c Expression Control Vector**: Not available.
## Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>pCTAP-A Expression Vector</th>
<th>pCTAP-B Expression Vector</th>
<th>pCTAP-C Expression Vector</th>
<th>pNTAP-Mef2a Expression Control Vector</th>
<th>pCMV-Tag2-Mef2c Expression Control Vector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative density</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-A Expression Vector</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-B Expression Vector</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-C Expression Vector</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-A Expression Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-B Expression Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-C Expression Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-A Expression Vector</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-B Expression Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-C Expression Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
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<td></td>
<td>pCTAP-A Expression Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-B Expression Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-C Expression Vector</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-A Expression Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-B Expression Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCTAP-C Expression Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>Not available</td>
</tr>
</tbody>
</table>

## Section 10. Stability and reactivity

### 10.1 Reactivity

<table>
<thead>
<tr>
<th>pCTAP-A Expression Vector</th>
<th>No specific test data related to reactivity available for this product or its ingredients.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
</tbody>
</table>

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### Section 10. Stability and reactivity

#### 10.2 Chemical stability

<table>
<thead>
<tr>
<th>Vector Type</th>
<th>Stability Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>The product is stable.</td>
</tr>
</tbody>
</table>

#### 10.3 Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Vector Type</th>
<th>Hazardous Reactions Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
</tbody>
</table>

#### 10.4 Conditions to avoid

<table>
<thead>
<tr>
<th>Vector Type</th>
<th>Conditions to Avoid Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

#### 10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Vector Type</th>
<th>Incompatible Materials Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>May react or be incompatible with oxidizing materials.</td>
</tr>
</tbody>
</table>

#### 10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Vector Type</th>
<th>Decomposition Products Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A Expression Vector</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>pCTAP-B Expression Vector</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>pCTAP-C Expression Vector</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

11.1 Information on toxicological effects

**Acute toxicity**
Not available.

**Irritation/Corrosion**
Not available.

**Sensitization**
Not available.

**Mutagenicity**
Conclusion/Summary: Not available.

**Carcinogenicity**
Conclusion/Summary: Not available.

**Reproductive toxicity**
Conclusion/Summary: Not available.

**Teratogenicity**
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 the likely routes of exposure**

<table>
<thead>
<tr>
<th>Vector Type</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A</td>
<td>Not available.</td>
</tr>
<tr>
<td>pCTAP-B</td>
<td>Not available.</td>
</tr>
<tr>
<td>pCTAP-C</td>
<td>Not available.</td>
</tr>
<tr>
<td>pNTAP-Mef2a</td>
<td>Not available.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Potential acute health effects**

**Eye contact**

<table>
<thead>
<tr>
<th>Vector Type</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>pCTAP-B</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>pCTAP-C</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>pNTAP-Mef2a</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Inhalation**

<table>
<thead>
<tr>
<th>Vector Type</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>pCTAP-A</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>pCTAP-B</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>pCTAP-C</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>pNTAP-Mef2a</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>pCMV-Tag2-Mef2c</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Date of issue:** 08/21/2019
## Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Skin contact</th>
<th>pCTAP-A Expression Vector</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pCTAP-B Expression Vector</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>pCTAP-C Expression Vector</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>pNTAP-Mef2a Expression Control Vector</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>pCMV-Tag2-Mef2c Expression Control Vector</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Ingestion**

| pCTAP-A Expression Vector | No known significant effects or critical hazards. |
| pCTAP-B Expression Vector | No known significant effects or critical hazards. |
| pCTAP-C Expression Vector | No known significant effects or critical hazards. |
| pNTAP-Mef2a Expression Control Vector | No known significant effects or critical hazards. |
| pCMV-Tag2-Mef2c Expression Control Vector | No known significant effects or critical hazards. |

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

| Eye contact | pCTAP-A Expression Vector | No specific data. |
|            | pCTAP-B Expression Vector | No specific data. |
|            | pCTAP-C Expression Vector | No specific data. |
|            | pNTAP-Mef2a Expression Control Vector | No specific data. |
|            | pCMV-Tag2-Mef2c Expression Control Vector | No specific data. |

| Inhalation | pCTAP-A Expression Vector | No specific data. |
|           | pCTAP-B Expression Vector | No specific data. |
|           | pCTAP-C Expression Vector | No specific data. |
|           | pNTAP-Mef2a Expression Control Vector | No specific data. |
|           | pCMV-Tag2-Mef2c Expression Control Vector | No specific data. |

| Skin contact | pCTAP-A Expression Vector | No specific data. |
|             | pCTAP-B Expression Vector | No specific data. |
|             | pCTAP-C Expression Vector | No specific data. |
|             | pNTAP-Mef2a Expression Control Vector | No specific data. |
|             | pCMV-Tag2-Mef2c Expression Control Vector | No specific data. |

| Ingestion | pCTAP-A Expression Vector | No specific data. |
|           | pCTAP-B Expression Vector | No specific data. |
|           | pCTAP-C Expression Vector | No specific data. |
|           | pNTAP-Mef2a Expression Control Vector | No specific data. |
|           | pCMV-Tag2-Mef2c Expression Control Vector | 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.
- **Potential delayed effects**: Not available.

### Long term exposure

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

**Potential chronic health effects**

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### Section 11. Toxicological information

#### General
- **pCTAP-A Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-B Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-C Expression Vector**: No known significant effects or critical hazards.
- **pNTAP-Mef2a Expression Control Vector**: No known significant effects or critical hazards.
- **pCMV-Tag2-Mef2c Expression Control Vector**: No known significant effects or critical hazards.

#### Carcinogenicity
- **pCTAP-A Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-B Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-C Expression Vector**: No known significant effects or critical hazards.
- **pNTAP-Mef2a Expression Control Vector**: No known significant effects or critical hazards.
- **pCMV-Tag2-Mef2c Expression Control Vector**: No known significant effects or critical hazards.

#### Mutagenicity
- **pCTAP-A Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-B Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-C Expression Vector**: No known significant effects or critical hazards.
- **pNTAP-Mef2a Expression Control Vector**: No known significant effects or critical hazards.
- **pCMV-Tag2-Mef2c Expression Control Vector**: No known significant effects or critical hazards.

#### Teratogenicity
- **pCTAP-A Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-B Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-C Expression Vector**: No known significant effects or critical hazards.
- **pNTAP-Mef2a Expression Control Vector**: No known significant effects or critical hazards.
- **pCMV-Tag2-Mef2c Expression Control Vector**: No known significant effects or critical hazards.

#### Developmental effects
- **pCTAP-A Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-B Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-C Expression Vector**: No known significant effects or critical hazards.
- **pNTAP-Mef2a Expression Control Vector**: No known significant effects or critical hazards.
- **pCMV-Tag2-Mef2c Expression Control Vector**: No known significant effects or critical hazards.

#### Fertility effects
- **pCTAP-A Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-B Expression Vector**: No known significant effects or critical hazards.
- **pCTAP-C Expression Vector**: No known significant effects or critical hazards.
- **pNTAP-Mef2a Expression Control Vector**: No known significant effects or critical hazards.
- **pCMV-Tag2-Mef2c Expression Control Vector**: No known significant effects or critical hazards.

### Numerical measures of toxicity

**Acute toxicity estimates**

N/A

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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<sub>OC</sub>) | 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**
- **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined
  - **Clean Water Act (CWA) 311**: Edetic acid

**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

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

**SARA 304 RQ**
- Not applicable.

**SARA 311/312**
- **Classification**: Not applicable.
  - pCTAP-A Expression Vector
  - pCTAP-B Expression Vector
  - pCTAP-C Expression Vector
  - pNTAP-Mef2a Expression Control Vector
  - pCMV-Tag2-Mef2c Expression Control Vector

**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.

**California Prop. 65**
- This product does not require a Safe Harbor warning under California Prop. 65.

**International regulations**
- **Chemical Weapon Convention List Schedules I, II & III Chemicals**: Not listed.
- **Montreal Protocol**: Not listed.
- **Stockholm Convention on Persistent Organic Pollutants**: Not listed.
- **Rotterdam Convention on Prior Informed Consent (PIC)**

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Section 15. Regulatory information

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia: Not determined.
Canada: Not determined.
China: All components are listed or exempted.
Europe: All components are listed or exempted.
Japan: Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): All components are listed or exempted.
New Zealand: Not determined.
Philippines: Not determined.
Republic of Korea: Not determined.
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

Date of issue: 08/21/2019
Date of previous issue: 05/26/2017
Version: 5

Key to abbreviations

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
N/A = Not available
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>

Indicates information that has changed from previously issued version.

Notice to reader

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