SAFETY DATA SHEET
AAV Helper-Free System, Part Number 240071

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

1.1 Product identifier
Product name: AAV Helper-Free System, Part Number 240071
Part No. (Kit): 240071
Part No.: AAV-293 Cell Line >1 x 10^6 Viable Cells 240073-41
         AAV-HT1080 Cell Line >1 x 10^6 Viable Cells 240109-41
         pAAV-MCS Vector 240071-55
         pCMV-MCS Vector 240071-51
         pAAV-LacZ Vector 240071-52
         pAAV-RC Plasmid 240071-53
         pHelper Vector 240071-54

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

<table>
<thead>
<tr>
<th>Identified uses</th>
<th>1 mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10^6 Viable Cells</td>
<td>1 mL</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10^6 Viable Cells</td>
<td>1 mL</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>0.01 mL (10 µg 1 µg/µl)</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>0.01 mL (10 µg 1 µg/µl)</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>0.01 mL (10 µg 1 µg/µl)</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>0.02 mL (20 µg 1 µg/µl)</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>0.02 mL (20 µg 1 µg/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: AAV-293 Cell Line >1 x 10^6 Viable Cells
         AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
         pAAV-MCS Vector
         pCMV-MCS Vector
         pAAV-LacZ Vector
         pAAV-RC Plasmid
         pHelper Vector
Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Date of issue/Date of revision: 19/10/2016
SECTION 2: Hazards identification

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 : AAV-293 Cell Line >1 x 10e6 Viable Cells
AAV-HT1080 Cell Line >1 x 10e6 Viable Cells
pAAV-MCS Vector No signal word.
pCMV-MCS Vector No signal word.
pAAV-LacZ Vector No signal word.
pAAV-RC Plasmid No signal word.
pHelper Vector No signal word.

Hazard statements : AAV-293 Cell Line >1 x 10e6 Viable Cells
AAV-HT1080 Cell Line >1 x 10e6 Viable Cells
pAAV-MCS Vector No known significant effects or critical hazards.
pCMV-MCS Vector No known significant effects or critical hazards.
pAAV-LacZ Vector No known significant effects or critical hazards.
pAAV-RC Plasmid No known significant effects or critical hazards.
pHelper Vector No known significant effects or critical hazards.

Precautionary statements

Prevention : AAV-293 Cell Line >1 x 10e6 Viable Cells
AAV-HT1080 Cell Line >1 x 10e6 Viable Cells
pAAV-MCS Vector Not applicable.
pCMV-MCS Vector Not applicable.
pAAV-LacZ Vector Not applicable.
pAAV-RC Plasmid Not applicable.
pHelper Vector Not applicable.

Response : AAV-293 Cell Line >1 x 10e6 Viable Cells
AAV-HT1080 Cell Line >1 x 10e6 Viable Cells
pAAV-MCS Vector Not applicable.
pCMV-MCS Vector Not applicable.
pAAV-LacZ Vector Not applicable.
pAAV-RC Plasmid Not applicable.
pHelper Vector Not applicable.

Storage : AAV-293 Cell Line >1 x 10e6 Viable Cells
AAV-HT1080 Cell Line >1 x 10e6 Viable Cells
pAAV-MCS Vector Not applicable.
pCMV-MCS Vector Not applicable.
pAAV-LacZ Vector Not applicable.
pAAV-RC Plasmid Not applicable.
pHelper Vector Not applicable.

Disposal : AAV-293 Cell Line >1 x 10e6 Viable Cells
AAV-HT1080 Cell Line >1 x 10e6 Viable Cells
pAAV-MCS Vector Not applicable.
pCMV-MCS Vector Not applicable.
pAAV-LacZ Vector Not applicable.
pAAV-RC Plasmid Not applicable.
## SECTION 2: Hazards identification

**Supplemental label elements**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>pHelper Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

**Special packaging requirements**

<table>
<thead>
<tr>
<th>Tactile warning of danger</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

**2.3 Other hazards**

<table>
<thead>
<tr>
<th>Other hazards which do not result in classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>None known.</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>None known.</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>None known.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>None known.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>None known.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>None known.</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>None known.</td>
</tr>
</tbody>
</table>

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>Mixture</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>Mixture</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>Mixture</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>Mixture</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>Mixture</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>Mixture</td>
</tr>
<tr>
<td>pHelper 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, 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
3. Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
4. Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
5. Substance of equivalent concern

**Date of issue/Date of revision**

: 19/10/2016
SECTION 3: Composition/information on ingredients

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>First aid措施</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>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.</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>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.</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>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.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>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.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>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.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>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.</td>
</tr>
<tr>
<td>pH Helper Vector</td>
<td>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.</td>
</tr>
</tbody>
</table>

Inhalation

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>First aid措施</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10e6 Viable Cells</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>AAV-HT1080 Cell Line &gt;1 x 10e6 Viable Cells</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>pAAV-MCS Vector</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>pCMV-MCS Vector</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>pAAV-LacZ Vector</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>pAAV-RC Plasmid</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>pH Helper Vector</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>
</tbody>
</table>

Skin contact

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>First aid措施</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 19/10/2016
SECTION 4: First aid measures

Ingestion:

- **pHelper Vector**: AAV-293 Cell Line >1 x 10^6 Viable Cells
  - 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.

- **pAAV-MCS Vector**: AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
  - 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.

- **pCMV-MCS Vector**: pAAV-LacZ 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.

Protection of first-aiders:

- **pHelper Vector**: AAV-293 Cell Line >1 x 10^6 Viable Cells
  - No action shall be taken involving any personal risk or without suitable training.

- **pCMV-MCS Vector**: AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
  - No action shall be taken involving any personal risk or without suitable training.

- **pAAV-MCS Vector**: pAAV-LacZ Vector
  - No action shall be taken involving any personal risk or without suitable training.

- **pAAV-RC Plasmid**: pH-helper Vector
  - 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**
SECTION 4: First aid measures

**Eye contact**
- AAV-293 Cell Line >1 x 10^6 Viable Cells
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
- pAAV-MCS Vector
- pCMV-MCS Vector
- pAAV-LacZ Vector
- pAAV-RC Plasmid
- pHelper Vector

No known significant effects or critical hazards.

**Inhalation**
- AAV-293 Cell Line >1 x 10^6 Viable Cells
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
- pAAV-MCS Vector
- pCMV-MCS Vector
- pAAV-LacZ Vector
- pAAV-RC Plasmid
- pHelper Vector

No known significant effects or critical hazards.

**Skin contact**
- AAV-293 Cell Line >1 x 10^6 Viable Cells
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
- pAAV-MCS Vector
- pCMV-MCS Vector
- pAAV-LacZ Vector
- pAAV-RC Plasmid
- pHelper Vector

No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact**
- AAV-293 Cell Line >1 x 10^6 Viable Cells
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
- pAAV-MCS Vector
- pCMV-MCS Vector
- pAAV-LacZ Vector
- pAAV-RC Plasmid
- pHelper Vector

No specific data.

**Inhalation**
- AAV-293 Cell Line >1 x 10^6 Viable Cells
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
- pAAV-MCS Vector
- pCMV-MCS Vector
- pAAV-LacZ Vector
- pAAV-RC Plasmid
- pHelper Vector

No specific data.

**Skin contact**
- AAV-293 Cell Line >1 x 10^6 Viable Cells
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
- pAAV-MCS Vector
- pCMV-MCS Vector
- pAAV-LacZ Vector
- pAAV-RC Plasmid
- pHelper Vector

No specific data.
SECTION 4: First aid measures

<table>
<thead>
<tr>
<th>Ingestion</th>
<th>Notes to physician</th>
<th>Specific treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td>pAAV-RC Plasmid</td>
<td>AAV-293 Cell Line &gt;1 x 10^6 Viable Cells</td>
<td>AAV-293 Cell Line &gt;1 x 10^6 Viable Cells</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>AAV-HT1080 Cell Line &gt;1 x 10^6 Viable Cells</td>
<td>AAV-HT1080 Cell Line &gt;1 x 10^6 Viable Cells</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>pAAV-MCS Vector</td>
<td>pAAV-MCS Vector</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>pCMV-MCS Vector</td>
<td>pCMV-MCS Vector</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>pAAV-LacZ Vector</td>
<td>pAAV-LacZ Vector</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>pAAV-RC Plasmid</td>
<td>pAAV-RC Plasmid</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>pHelper Vector</td>
<td>pHelper Vector</td>
</tr>
</tbody>
</table>

Specific treatments:

- **Notes to physician**: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- **Specific treatments**: Use an extinguishing agent suitable for the surrounding fire.
- **Unsuitable extinguishing media**: None known.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media:
  - AAV-293 Cell Line >1 x 10^6 Viable Cells
  - AAV-HT1080 Cell Line >1 x 10^6 Viable Cells

- Unsuitable extinguishing media:
  - AAV-293 Cell Line >1 x 10^6 Viable Cells
  - AAV-HT1080 Cell Line >1 x 10^6 Viable Cells

Date of issue/Date of revision: 19/10/2016
## SECTION 5: Firefighting measures

### Hazards from the substance or mixture

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10^6 Viable Cells</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10^6 Viable Cells</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>

### Hazardous combustion products

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10^6 Viable Cells</td>
<td>Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10^6 Viable Cells</td>
<td>Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>No specific data.</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

### 5.3 Advice for firefighters

#### Special precautions for fire-fighters

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10^6 Viable Cells</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>AAV-HT1080 Cell Line &gt;1 x 10^6 Viable Cells</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>pAAV-MCS Vector</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>pCMV-MCS Vector</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>pAAV-LacZ Vector</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>pAAV-RC Plasmid</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

#### Special protective equipment for fire-fighters

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10^6 Viable Cells</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>AAV-HT1080 Cell Line &gt;1 x 10^6 Viable Cells</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>

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SECTION 5: Firefighting measures

pAAV-MCS Vector
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.

pCMV-MCS Vector
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.

pAAV-LacZ Vector
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.

pAAV-RC Plasmid
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.

pHelper Vector
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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

<table>
<thead>
<tr>
<th>Cell Line</th>
<th>Viable Cells</th>
<th>Action and Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line</td>
<td>&gt;1 x 10e6</td>
<td>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line</td>
<td>&gt;1 x 10e6</td>
<td>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<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. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<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. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<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. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<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. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.</td>
</tr>
</tbody>
</table>
### SECTION 6: Accidental release measures

#### For emergency responders

<table>
<thead>
<tr>
<th>Product</th>
<th>Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>pHelper Vector</td>
<td>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).</td>
</tr>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in &quot;For non-emergency personnel&quot;.</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10e6 Viable Cells</td>
<td>If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in &quot;For non-emergency personnel&quot;.</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in &quot;For non-emergency personnel&quot;.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in &quot;For non-emergency personnel&quot;.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in &quot;For non-emergency personnel&quot;.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in &quot;For non-emergency personnel&quot;.</td>
</tr>
</tbody>
</table>

#### 6.2 Environmental precautions

<table>
<thead>
<tr>
<th>Product</th>
<th>Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10e6 Viable Cells</td>
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<td>pAAV-MCS Vector</td>
<td>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).</td>
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<td>pCMV-MCS Vector</td>
<td>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).</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>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).</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>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).</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>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).</td>
</tr>
</tbody>
</table>
SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

Methods for cleaning up:

AAV-293 Cell Line >1 x 10^6 Viable Cells
- 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.

AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
- 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.

pAAV-MCS 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-MCS 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.

pAAV-LacZ 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.

pAAV-RC 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.

pHelper 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.

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:

AAV-293 Cell Line >1 x 10^6 Viable Cells
- Put on appropriate personal protective equipment (see Section 8).

AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
- Put on appropriate personal protective equipment (see Section 8).

pAAV-MCS Vector
- Put on appropriate personal protective equipment (see Section 8).

pCMV-MCS Vector
- Put on appropriate personal protective equipment (see Section 8).

pAAV-LacZ Vector
- Put on appropriate personal protective equipment (see Section 8).

pAAV-RC Plasmid
- Put on appropriate personal protective equipment (see Section 8).

pHelper Vector
- Put on appropriate personal protective equipment (see Section 8).

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SECTION 7: Handling and storage

Advice on general occupational hygiene:

- **AAV-293 Cell Line >1 x 10^6 Viable Cells**
  - Potentially biohazardous material. 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.

- **AAV-HT1080 Cell Line >1 x 10^6 Viable Cells**
  - Potentially biohazardous material. 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.

- **pAAV-MCS Vector**
  - 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.

- **pCMV-MCS Vector**
  - 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.

- **pAAV-LacZ Vector**
  - 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.

- **pAAV-RC 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.

- **pHelper Vector**
  - 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:

**Storage**:

- **AAV-293 Cell Line >1 x 10^6 Viable Cells**
  - 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.

- **AAV-HT1080 Cell Line >1 x 10^6 Viable Cells**
  - 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.
## SECTION 7: Handling and storage

<table>
<thead>
<tr>
<th>Vector Type</th>
<th>Handling and Storage Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>pAAV-MCS 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.</td>
</tr>
<tr>
<td>pCMV-MCS 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.</td>
</tr>
<tr>
<td>pAAV-LacZ 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.</td>
</tr>
<tr>
<td>pAAV-RC 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.</td>
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<tr>
<td>pHelper Vector</td>
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</tr>
</tbody>
</table>

### 7.3 Specific end use(s)

**Recommendations**

- **AAV-293 Cell Line**: >1 x 10^6 Viable Cells | Industrial applications, Professional applications.
- **AAV-HT1080 Cell Line**: >1 x 10^6 Viable Cells | Industrial applications, Professional applications.
- **pAAV-MCS Vector**: Industrial applications, Professional applications.
- **pCMV-MCS Vector**: Industrial applications, Professional applications.
- **pAAV-LacZ Vector**: Industrial applications, Professional applications.
- **pAAV-RC Plasmid**: Industrial applications, Professional applications.
- **pHelper Vector**: Not applicable.

**Industrial sector specific solutions**

- **AAV-293 Cell Line**: >1 x 10^6 Viable Cells | Not applicable.
- **AAV-HT1080 Cell Line**: >1 x 10^6 Viable Cells | Not applicable.
- **pAAV-MCS Vector**: Not applicable.
- **pCMV-MCS Vector**: Not applicable.
- **pAAV-LacZ Vector**: Not applicable.

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SECTION 7: Handling and storage

<table>
<thead>
<tr>
<th>pAAV-RC Plasmid</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pHelper Vector</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

SECTION 8: Exposure controls/personal protection

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

Hygiene measures: Handle as biohazard material (Biosafety level 1). 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.

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SECTION 8: Exposure controls/personal protection

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

Appearance

Physical state: AAV-293 Cell Line >1 x 10^6 Viable Cells
AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
pAAV-MCS Vector
pCMV-MCS Vector
pAAV-LacZ Vector
pAAV-RC Plasmid
pHelper Vector

AAV-293 Cell Line >1 x 10^6 Viable Cells
AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
pAAV-MCS Vector
pCMV-MCS Vector
pAAV-LacZ Vector
pAAV-RC Plasmid
pHelper Vector

Colour: AAV-293 Cell Line >1 x 10^6 Viable Cells
AAV-HT1080 Cell Line Not available.
pAAV-MCS Vector Not available.
pCMV-MCS Vector Not available.
pAAV-LacZ Vector Not available.
pAAV-RC Plasmid Not available.
pHelper Vector Not available.

Odour: AAV-293 Cell Line >1 x 10^6 Viable Cells
AAV-HT1080 Cell Line Not available.
pAAV-MCS Vector Not available.
pCMV-MCS Vector Not available.
pAAV-LacZ Vector Not available.
pAAV-RC Plasmid Not available.
pHelper Vector Not available.

Odour threshold: AAV-293 Cell Line >1 x 10^6 Viable Cells
AAV-HT1080 Cell Line Not available.
pAAV-MCS Vector Not available.
pCMV-MCS Vector Not available.
pAAV-LacZ Vector Not available.
pAAV-RC Plasmid Not available.
pHelper Vector Not available.

pH: AAV-293 Cell Line >1 x 10^6 Viable Cells
AAV-HT1080 Cell Line Not available.
pAAV-MCS Vector 7.5
pCMV-MCS Vector 7.5
pAAV-LacZ Vector 7.5
pAAV-RC Plasmid 7.5
pHelper Vector 7.5

Melting point/freezing point: AAV-293 Cell Line >1 x 10^6 Viable Cells
AAV-HT1080 Cell Line Not available.
pAAV-MCS Vector 0°C
pCMV-MCS Vector 0°C
pAAV-LacZ Vector 0°C
pAAV-RC Plasmid 0°C
pHelper Vector 0°C

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## SECTION 9: Physical and chemical properties

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<tbody>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
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<td><strong>Flash point</strong></td>
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<td><strong>Evaporation rate</strong></td>
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<td><strong>Flammability (solid, gas)</strong></td>
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<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
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<td><strong>Vapour pressure</strong></td>
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<tr>
<td><strong>Vapour density</strong></td>
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</table>

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## SECTION 9: Physical and chemical properties

### Relative density
- **AAV-293 Cell Line**: >1 x 10^6 Viable Cells
- **AAV-HT1080 Cell Line**: >1 x 10^6 Viable Cells
- **pAAV-MCS Vector**: Not available.
- **pCMV-MCS Vector**: Not available.
- **pAAV-LacZ Vector**: Not available.
- **pAAV-RC Plasmid**: Not available.
- **pHelper Vector**: Not available.

### Solubility(ies)
- **AAV-293 Cell Line**: Soluble in the following materials: cold water and hot water.
- **AAV-HT1080 Cell Line**: Soluble in the following materials: cold water and hot water.
- **pAAV-MCS Vector**: Easily soluble in the following materials: cold water and hot water.
- **pCMV-MCS Vector**: Easily soluble in the following materials: cold water and hot water.
- **pAAV-LacZ Vector**: Easily soluble in the following materials: cold water and hot water.
- **pAAV-RC Plasmid**: Easily soluble in the following materials: cold water and hot water.
- **pHelper Vector**: Easily soluble in the following materials: cold water and hot water.

### Partition coefficient: n-octanol/water
- **AAV-293 Cell Line**: Not available.
- **AAV-HT1080 Cell Line**: Not available.
- **pAAV-MCS Vector**: Not available.
- **pCMV-MCS Vector**: Not available.
- **pAAV-LacZ Vector**: Not available.
- **pAAV-RC Plasmid**: Not available.
- **pHelper Vector**: Not available.

### Auto-ignition temperature
- **AAV-293 Cell Line**: Not available.
- **AAV-HT1080 Cell Line**: Not available.
- **pAAV-MCS Vector**: Not available.
- **pCMV-MCS Vector**: Not available.
- **pAAV-LacZ Vector**: Not available.
- **pAAV-RC Plasmid**: Not available.
- **pHelper Vector**: Not available.

### Decomposition temperature
- **AAV-293 Cell Line**: Not available.
- **AAV-HT1080 Cell Line**: Not available.
- **pAAV-MCS Vector**: Not available.
- **pCMV-MCS Vector**: Not available.
- **pAAV-LacZ Vector**: Not available.
- **pAAV-RC Plasmid**: Not available.
- **pHelper Vector**: Not available.

### Viscosity
- **AAV-293 Cell Line**: Not available.
- **AAV-HT1080 Cell Line**: Not available.
- **pAAV-MCS Vector**: Not available.
- **pCMV-MCS Vector**: Not available.
- **pAAV-LacZ Vector**: Not available.
- **pAAV-RC Plasmid**: Not available.
- **pHelper Vector**: Not available.

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SECTION 9: Physical and chemical properties

Explosive properties:
- AAV-293 Cell Line >1 x 10^6 Viable Cells: Not available.
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells: Not available.
- pAAV-MCS Vector: Not available.
- pCMV-MCS Vector: Not available.
- pAAV-LacZ Vector: Not available.
- pAAV-RC Plasmid: Not available.
- pH Helper Vector: Not available.

Oxidising properties:
- AAV-293 Cell Line >1 x 10^6 Viable Cells: Not available.
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells: Not available.
- pAAV-MCS Vector: Not available.
- pCMV-MCS Vector: Not available.
- pAAV-LacZ Vector: Not available.
- pAAV-RC Plasmid: Not available.
- pH Helper Vector: Not available.

9.2 Other information
No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity:
- AAV-293 Cell Line >1 x 10^6 Viable Cells: No specific test data related to reactivity available for this product or its ingredients.
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells: No specific test data related to reactivity available for this product or its ingredients.
- pAAV-MCS Vector: No specific test data related to reactivity available for this product or its ingredients.
- pCMV-MCS Vector: No specific test data related to reactivity available for this product or its ingredients.
- pAAV-LacZ Vector: No specific test data related to reactivity available for this product or its ingredients.
- pAAV-RC Plasmid: No specific test data related to reactivity available for this product or its ingredients.
- pH Helper Vector: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability:
- AAV-293 Cell Line >1 x 10^6 Viable Cells: The product is stable.
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells: The product is stable.
- pAAV-MCS Vector: The product is stable.
- pCMV-MCS Vector: The product is stable.
- pAAV-LacZ Vector: The product is stable.
- pAAV-RC Plasmid: The product is stable.
- pH Helper Vector: The product is stable.

10.3 Possibility of hazardous reactions:
- AAV-293 Cell Line >1 x 10^6 Viable Cells: Under normal conditions of storage and use, hazardous reactions will not occur.
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells: Under normal conditions of storage and use, hazardous reactions will not occur.
- pAAV-MCS Vector: Under normal conditions of storage and use, hazardous reactions will not occur.
- pCMV-MCS Vector: Under normal conditions of storage and use, hazardous reactions will not occur.
- pAAV-LacZ Vector: Under normal conditions of storage and use, hazardous reactions will not occur.
- pAAV-RC Plasmid: Under normal conditions of storage and use, hazardous reactions will not occur.
- pH Helper Vector: Under normal conditions of storage and use, hazardous reactions will not occur.
**SECTION 10: Stability and reactivity**

10.4 Conditions to avoid

- **AAV-293 Cell Line >1 x 10^6 Viable Cells**
- **AAV-HT1080 Cell Line >1 x 10^6 Viable Cells**
- **pAAV-MCS Vector**
- **pCMV-MCS Vector**
- **pAAV-LacZ Vector**
- **pAAV-RC Plasmid**
- **pHelper Vector**

No specific data.

10.5 Incompatible materials

- **AAV-293 Cell Line >1 x 10^6 Viable Cells**
- **AAV-HT1080 Cell Line >1 x 10^6 Viable Cells**
- **pAAV-MCS Vector**
- **pCMV-MCS Vector**
- **pAAV-LacZ Vector**
- **pAAV-RC Plasmid**
- **pHelper Vector**

May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products

- **AAV-293 Cell Line >1 x 10^6 Viable Cells**
- **AAV-HT1080 Cell Line >1 x 10^6 Viable Cells**
- **pAAV-MCS Vector**
- **pCMV-MCS Vector**
- **pAAV-LacZ Vector**
- **pAAV-RC Plasmid**
- **pHelper Vector**

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.

**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.

**Date of issue/Date of revision**

19/10/2016
## SECTION 11: Toxicological information

### Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Material</th>
<th>Routes of entry anticipated: Oral, Dermal, Inhalation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line &gt;1 x 10^6 Viable Cells</td>
<td>Inhalation</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line &gt;1 x 10^6 Viable Cells</td>
<td>Inhalation</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>Not available.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>Not available.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>Not available.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>Not available.</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### Potential acute health effects

#### Inhalation

- **AAV-293 Cell Line >1 x 10^6 Viable Cells**: No known significant effects or critical hazards.
- **AAV-HT1080 Cell Line >1 x 10^6 Viable Cells**: No known significant effects or critical hazards.
- **pAAV-MCS Vector**: No known significant effects or critical hazards.
- **pCMV-MCS Vector**: No known significant effects or critical hazards.
- **pAAV-LacZ Vector**: No known significant effects or critical hazards.
- **pAAV-RC Plasmid**: No known significant effects or critical hazards.
- **pHelper Vector**: No known significant effects or critical hazards.

#### Ingestion

- **AAV-293 Cell Line >1 x 10^6 Viable Cells**: No known significant effects or critical hazards.
- **AAV-HT1080 Cell Line >1 x 10^6 Viable Cells**: No known significant effects or critical hazards.
- **pAAV-MCS Vector**: No known significant effects or critical hazards.
- **pCMV-MCS Vector**: No known significant effects or critical hazards.
- **pAAV-LacZ Vector**: No known significant effects or critical hazards.
- **pAAV-RC Plasmid**: No known significant effects or critical hazards.
- **pHelper Vector**: No known significant effects or critical hazards.

#### Skin contact

- **AAV-293 Cell Line >1 x 10^6 Viable Cells**: No known significant effects or critical hazards.
- **AAV-HT1080 Cell Line >1 x 10^6 Viable Cells**: No known significant effects or critical hazards.
- **pAAV-MCS Vector**: No known significant effects or critical hazards.
- **pCMV-MCS Vector**: No known significant effects or critical hazards.
- **pAAV-LacZ Vector**: No known significant effects or critical hazards.
- **pAAV-RC Plasmid**: No known significant effects or critical hazards.
- **pHelper Vector**: No known significant effects or critical hazards.

#### Eye contact

- **AAV-293 Cell Line >1 x 10^6 Viable Cells**: No known significant effects or critical hazards.
- **AAV-HT1080 Cell Line >1 x 10^6 Viable Cells**: No known significant effects or critical hazards.
- **pAAV-MCS Vector**: No known significant effects or critical hazards.
- **pCMV-MCS Vector**: No known significant effects or critical hazards.
- **pAAV-LacZ Vector**: No known significant effects or critical hazards.
- **pAAV-RC Plasmid**: No known significant effects or critical hazards.
- **pHelper Vector**: No known significant effects or critical hazards.

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

#### Inhalation

- **AAV-293 Cell Line >1 x 10^6 Viable Cells**: No specific data.
- **AAV-HT1080 Cell Line >1 x 10^6 Viable Cells**: No specific data.
- **pAAV-MCS Vector**: No specific data.
- **pCMV-MCS Vector**: No specific data.
- **pAAV-LacZ Vector**: No specific data.
- **pAAV-RC Plasmid**: No specific data.
- **pHelper Vector**: No specific data.

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SECTION 11: Toxicological information

Potential chronic health effects

General: AAV-293 Cell Line >1 x 10^6 Viable Cells
No known significant effects or critical hazards.
AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
No known significant effects or critical hazards.
pAAV-MCS Vector
No known significant effects or critical hazards.
pCMV-MCS Vector
No known significant effects or critical hazards.
pAAV-LacZ Vector
No known significant effects or critical hazards.
pAAV-RC Plasmid
No known significant effects or critical hazards.
pHelper Vector
No known significant effects or critical hazards.

Carcinogenicity: AAV-293 Cell Line >1 x 10^6 Viable Cells
No known significant effects or critical hazards.
AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
No known significant effects or critical hazards.
pAAV-MCS Vector
No known significant effects or critical hazards.
pCMV-MCS Vector
No known significant effects or critical hazards.
pAAV-LacZ Vector
No known significant effects or critical hazards.
pAAV-RC Plasmid
No known significant effects or critical hazards.
pHelper Vector
No known significant effects or critical hazards.
AAV Helper-Free System, Part Number 240071

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)

SECTION 11: Toxicological information

**Mutagenicity**
- AAV-293 Cell Line >1 x 10^6 Viable Cells
  - No known significant effects or critical hazards.
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
  - No known significant effects or critical hazards.
- pAAV-MCS Vector
  - No known significant effects or critical hazards.
- pCMV-MCS Vector
  - No known significant effects or critical hazards.
- pAAV-LacZ Vector
  - No known significant effects or critical hazards.
- pAAV-RC Plasmid
  - No known significant effects or critical hazards.
- pHelper Vector
  - No known significant effects or critical hazards.

**Teratogenicity**
- AAV-293 Cell Line >1 x 10^6 Viable Cells
  - No known significant effects or critical hazards.
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
  - No known significant effects or critical hazards.
- pAAV-MCS Vector
  - No known significant effects or critical hazards.
- pCMV-MCS Vector
  - No known significant effects or critical hazards.
- pAAV-LacZ Vector
  - No known significant effects or critical hazards.
- pAAV-RC Plasmid
  - No known significant effects or critical hazards.
- pHelper Vector
  - No known significant effects or critical hazards.

**Developmental effects**
- AAV-293 Cell Line >1 x 10^6 Viable Cells
  - No known significant effects or critical hazards.
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
  - No known significant effects or critical hazards.
- pAAV-MCS Vector
  - No known significant effects or critical hazards.
- pCMV-MCS Vector
  - No known significant effects or critical hazards.
- pAAV-LacZ Vector
  - No known significant effects or critical hazards.
- pAAV-RC Plasmid
  - No known significant effects or critical hazards.
- pHelper Vector
  - No known significant effects or critical hazards.

**Fertility effects**
- AAV-293 Cell Line >1 x 10^6 Viable Cells
  - No known significant effects or critical hazards.
- AAV-HT1080 Cell Line >1 x 10^6 Viable Cells
  - No known significant effects or critical hazards.
- pAAV-MCS Vector
  - No known significant effects or critical hazards.
- pCMV-MCS Vector
  - No known significant effects or critical hazards.
- pAAV-LacZ Vector
  - No known significant effects or critical hazards.
- pAAV-RC Plasmid
  - No known significant effects or critical hazards.
- pHelper Vector
  - 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.

12.4 Mobility in soil
- **Soil/water partition coefficient (K<sub>OC</sub>)**: 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.

**Date of issue/Date of revision**: 19/10/2016
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : 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

Methods of disposal : 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Regulatory information

ADR/RID / IMDG / IATA : Not regulated.

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.

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

<table>
<thead>
<tr>
<th>Substance/Vector</th>
<th>Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAV-293 Cell Line</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>AAV-HT1080 Cell Line</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-MCS Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pCMV-MCS Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-LacZ Vector</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pAAV-RC Plasmid</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pHelper Vector</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Other EU regulations

Europe inventory : All components are listed or exempted.

Industrial emissions (integrated pollution prevention and control) - Air


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SECTION 15: Regulatory information

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

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.

International lists

National inventory

Australia : Not determined.
Canada : Not determined.
China : Not determined.
Japan : Japan inventory (ENCS): Not determined.
        : Japan inventory (ISHL): Not determined.
Malaysia : Not determined.
New Zealand : Not determined.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : Not determined.
Turkey : Not determined.
United States : Not determined.

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

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>
</tr>
</tbody>
</table>

Full text of abbreviated H statements
Not applicable.

Full text of classifications [CLP/GHS]

Date of issue/Date of revision : 19/10/2016
SECTION 16: Other information

Not applicable.

Date of issue/ Date of revision : 19/10/2016
Date of previous issue : No previous validation.
Version : 1

Notice to reader

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