SAFETY DATA SHEET

pMC1neo and pMC1neo Poly(A) Vectors, Part Number 213201

Section 1. Identification

Product identifier : pMC1neo and pMC1neo Poly(A) Vectors, Part Number 213201
Part No. (Chemical Kit) : 213201
Part No. : pMC1neo Vector 213201-51
          pMC1neo Poly A 213201-52
          AG1 E. coli Strain 200274-81

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

Analytical reagent.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Use</th>
<th>Amount</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>pMC1neo Vector</td>
<td>25 µl (25 µg 1 µg/µl)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pMC1neo Poly A</td>
<td>25 µl (25 µg 1 µg/µl)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AG1 E. coli Strain</td>
<td>500 µl</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: (61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture
Not classified.

GHS label elements

Signal word : pMC1neo Vector No signal word.
             pMC1neo Poly A No signal word.
             AG1 E. coli Strain No signal word.

Hazard statements : pMC1neo Vector No known significant effects or critical hazards.
                    pMC1neo Poly A No known significant effects or critical hazards.
                    AG1 E. coli Strain No known significant effects or critical hazards.

Precautionary statements

Prevention : pMC1neo Vector Not applicable.
             pMC1neo Poly A Not applicable.
             AG1 E. coli Strain Not applicable.

Response : pMC1neo Vector Not applicable.
           pMC1neo Poly A Not applicable.
           AG1 E. coli Strain Not applicable.

Storage : pMC1neo Vector Not applicable.
          pMC1neo Poly A Not applicable.
          AG1 E. coli Strain Not applicable.

Disposal : pMC1neo Vector Not applicable.
           pMC1neo Poly A Not applicable.
           AG1 E. coli Strain Not applicable.

Supplemental label elements : pMC1neo Vector Not applicable.
                             : pMC1neo Poly A Not applicable.
                             : AG1 E. coli Strain Not applicable.

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Section 2. Hazard(s) identification

Other hazards which do not result in classification

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>pMC1neo Vector</th>
<th>pMC1neo Poly A</th>
<th>AG1 E. coli Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>pMC1neo Vector</td>
<td>None known.</td>
<td>None known.</td>
<td>None known.</td>
</tr>
<tr>
<td>pMC1neo Poly A</td>
<td>None known.</td>
<td>None known.</td>
<td>None known.</td>
</tr>
<tr>
<td>AG1 E. coli Strain</td>
<td>None known.</td>
<td>None known.</td>
<td>None known.</td>
</tr>
</tbody>
</table>

Section 3. Composition and ingredient information

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>AG1 E. coli Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient name</td>
<td>Glycerol</td>
</tr>
<tr>
<td>CAS number</td>
<td>56-81-5</td>
</tr>
<tr>
<td>% (w/w)</td>
<td>≥10 - ≤30</td>
</tr>
</tbody>
</table>

There are no additional 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

<table>
<thead>
<tr>
<th>Description of necessary first aid measures</th>
<th>Eye contact</th>
<th>Inhalation</th>
<th>Skin contact</th>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>pMC1neo 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>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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>
<td>Wash out mouth with water. 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>pMC1neo Poly A</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>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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>
<td>Wash out mouth with water. 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>AG1 E. coli Strain</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>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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>
<td>Wash out mouth with water. 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>

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Section 4. First aid measures

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.

AG1 E. coli Strain
Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

<table>
<thead>
<tr>
<th>Category</th>
<th>pMC1neo Vector</th>
<th>pMC1neo Poly A</th>
<th>AG1 E. coli Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Category</th>
<th>pMC1neo Vector</th>
<th>pMC1neo Poly A</th>
<th>AG1 E. coli Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

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

Notes to physician

<table>
<thead>
<tr>
<th>pMC1neo Vector</th>
<th>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pMC1neo Poly A</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td>AG1 E. coli Strain</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>pMC1neo Vector</th>
<th>No specific treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pMC1neo Poly A</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td>AG1 E. coli Strain</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>
Section 4. First aid measures

Protection of first-aiders:
- **pMC1neo Vector**: No action shall be taken involving any personal risk or without suitable training.
- **pMC1neo Poly A**: No action shall be taken involving any personal risk or without suitable training.
- **AG1 E. coli Strain**: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>pMC1neo Vector</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pMC1neo Poly A</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td></td>
</tr>
<tr>
<td>AG1 E. coli Strain</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td></td>
</tr>
</tbody>
</table>

 Unsuitable extinguishing media

| pMC1neo Vector | None known. |
| pMC1neo Poly A | None known. |
| AG1 E. coli Strain | None known. |

Specific hazards arising from the chemical

| pMC1neo Vector | In a fire or if heated, a pressure increase will occur and the container may burst. |
| pMC1neo Poly A | In a fire or if heated, a pressure increase will occur and the container may burst. |
| AG1 E. coli Strain | In a fire or if heated, a pressure increase will occur and the container may burst. |

Hazardous thermal decomposition products

| pMC1neo Vector | No specific data. |
| pMC1neo Poly A | No specific data. |
| AG1 E. coli Strain | Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds, metal oxide/oxides |

Special protective actions for fire-fighters

| pMC1neo 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. |
| pMC1neo Poly A | 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. |
| AG1 E. coli Strain | 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. |

Special protective equipment for fire-fighters

| pMC1neo Vector | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| pMC1neo Poly A | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| AG1 E. coli Strain | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

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Section 5. Firefighting measures

<table>
<thead>
<tr>
<th>Hazchem code</th>
<th>pMC1neo Vector</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pMC1neo Poly A</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>AG1 E. coli Strain</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

- **pMC1neo Vector**: 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.
- **pMC1neo Poly A**: 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.
- **AG1 E. coli Strain**: 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.

For emergency responders:

- **pMC1neo Vector**: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- **pMC1neo Poly A**: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- **AG1 E. coli Strain**: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions:

- **pMC1neo Vector**: 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).
- **pMC1neo Poly A**: 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).
- **AG1 E. coli Strain**: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up
Section 6. Accidental release measures

Methods for cleaning up
- **pMC1neo 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.

- **pMC1neo Poly A**
  - 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.

- **AG1 E. coli Strain**
  - Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures
- **pMC1neo Vector**
  - Put on appropriate personal protective equipment (see Section 8).

- **pMC1neo Poly A**
  - Put on appropriate personal protective equipment (see Section 8).

- **AG1 E. coli Strain**
  - Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene
- **pMC1neo 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.

- **pMC1neo Poly A**
  - 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.

- **AG1 E. coli Strain**
  - 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.

Conditions for safe storage, including any incompatibilities
- **pMC1neo Vector**
  - 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.

- **pMC1neo Poly A**
  - Store in accordance with local regulations. Store in original container protected from direct sunlight in a
Section 7. Handling and storage

AG1 E. coli Strain
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 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG1 E. coli Strain</td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>Safe Work Australia (Australia, 1/2014).</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

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: 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.
**Section 8. Exposure controls and personal protection**

**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 9. Physical and chemical properties**

**Appearance**

<table>
<thead>
<tr>
<th>Property</th>
<th>pMC1neo Vector</th>
<th>pMC1neo Poly A</th>
<th>AG1 E. coli Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td>Liquid</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Odour</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>7.5</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>0°C (32°F)</td>
<td>0°C (32°F)</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>100°C (212°F)</td>
<td>100°C (212°F)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

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Section 9. Physical and chemical properties

Auto-ignition temperature
- pMC1neo Vector: Not available.
- pMC1neo Poly A: Not available.
- AG1 E. coli Strain: Not available.

Decomposition temperature
- pMC1neo Vector: Not available.
- pMC1neo Poly A: Not available.
- AG1 E. coli Strain: Not available.

Viscosity
- pMC1neo Vector: Not available.
- pMC1neo Poly A: Not available.
- AG1 E. coli Strain: Not available.

Section 10. Stability and reactivity

Reactivity
- pMC1neo Vector: No specific test data related to reactivity available for this product or its ingredients.
- pMC1neo Poly A: No specific test data related to reactivity available for this product or its ingredients.
- AG1 E. coli Strain: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability
- pMC1neo Vector: The product is stable.
- pMC1neo Poly A: The product is stable.
- AG1 E. coli Strain: The product is stable.

Possibility of hazardous reactions
- pMC1neo Vector: Under normal conditions of storage and use, hazardous reactions will not occur.
- pMC1neo Poly A: Under normal conditions of storage and use, hazardous reactions will not occur.
- AG1 E. coli Strain: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid
- pMC1neo Vector: No specific data.
- pMC1neo Poly A: No specific data.
- AG1 E. coli Strain: No specific data.

Incompatible materials
- pMC1neo Vector: May react or be incompatible with oxidising materials.
- pMC1neo Poly A: May react or be incompatible with oxidising materials.
- AG1 E. coli Strain: May react or be incompatible with oxidising materials.

Hazardous decomposition products
- pMC1neo Vector: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- pMC1neo Poly A: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- AG1 E. coli Strain: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG1 E. coli Strain Glycerol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

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Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG1 E. coli Strain</td>
<td>Glycerol</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>AG1 E. coli Strain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sensitisation
Not available.

Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

Teratogenicity
Not available.

Specific target organ toxicity (single exposure)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on likely routes of exposure
- pMC1neo Vector
- pMC1neo Poly A
- AG1 E. coli Strain
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact
- pMC1neo Vector
No known significant effects or critical hazards.
- pMC1neo Poly A
No known significant effects or critical hazards.
- AG1 E. coli Strain
No known significant effects or critical hazards.

Inhalation
- pMC1neo Vector
No known significant effects or critical hazards.
- pMC1neo Poly A
No known significant effects or critical hazards.
- AG1 E. coli Strain
No known significant effects or critical hazards.

Skin contact
- pMC1neo Vector
No known significant effects or critical hazards.
- pMC1neo Poly A
No known significant effects or critical hazards.
- AG1 E. coli Strain
No known significant effects or critical hazards.

Ingestion
- pMC1neo Vector
No known significant effects or critical hazards.
- pMC1neo Poly A
No known significant effects or critical hazards.
- AG1 E. coli Strain
No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact
- pMC1neo Vector
No specific data.
- pMC1neo Poly A
No specific data.
- AG1 E. coli Strain
No specific data.

Inhalation
- pMC1neo Vector
No specific data.
- pMC1neo Poly A
No specific data.
- AG1 E. coli Strain
No specific data.

Skin contact
- pMC1neo Vector
No specific data.
- pMC1neo Poly A
No specific data.
- AG1 E. coli Strain
No specific data.
Section 11. Toxicological information

Ingestion:
- pMC1neo Vector: No specific data.
- pMC1neo Poly A: No specific data.
- AG1 E. coli Strain: No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure:
- Potential immediate effects: Not available.
- Potential delayed effects: Not available.

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

Potential chronic health effects:
- Not available.

General:
- pMC1neo Vector: No known significant effects or critical hazards.
- pMC1neo Poly A: No known significant effects or critical hazards.
- AG1 E. coli Strain: No known significant effects or critical hazards.

Carcinogenicity:
- pMC1neo Vector: No known significant effects or critical hazards.
- pMC1neo Poly A: No known significant effects or critical hazards.
- AG1 E. coli Strain: No known significant effects or critical hazards.

Mutagenicity:
- pMC1neo Vector: No known significant effects or critical hazards.
- pMC1neo Poly A: No known significant effects or critical hazards.
- AG1 E. coli Strain: No known significant effects or critical hazards.

Teratogenicity:
- pMC1neo Vector: No known significant effects or critical hazards.
- pMC1neo Poly A: No known significant effects or critical hazards.
- AG1 E. coli Strain: No known significant effects or critical hazards.

Developmental effects:
- pMC1neo Vector: No known significant effects or critical hazards.
- pMC1neo Poly A: No known significant effects or critical hazards.
- AG1 E. coli Strain: No known significant effects or critical hazards.

Fertility effects:
- pMC1neo Vector: No known significant effects or critical hazards.
- pMC1neo Poly A: No known significant effects or critical hazards.
- AG1 E. coli Strain: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates:
- Not available.

Other information:
- pMC1neo Vector: Not available.
- pMC1neo Poly A: Not available.
- AG1 E. coli Strain: Not available.

Section 12. Ecological information

Toxicity:

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG1 E. coli Strain</td>
<td>Glycerol</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
- Not available.

Bioaccumulative potential
- Not available.
Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG1 E. coli Strain Glycerol</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

- **Soil/water partition coefficient (K_{OC})**: Not available.

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

Section 13. Disposal considerations

**Disposal methods**: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

**Regulatory information**

- **ADG / IMDG / IATA**: Not regulated as Dangerous Goods according to the ADG Code.

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

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

Section 15. Regulatory information

**Standard Uniform Schedule of Medicine and Poisons**: Not regulated.

**Model Work Health and Safety Regulations - Scheduled Substances**: No listed substance

**Australia inventory (AICS)**: All components are listed or exempted.

**International regulations**

- **Chemical Weapon Convention List Schedules I, II & III Chemicals**: Not listed.
- **Stockholm Convention on Persistent Organic Pollutants**: Not listed.

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Date of previous issue: 30/09/2015
Version: 4
Section 15. Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

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

Section 16. Any other relevant information

History

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Date of previous issue : 30/09/2015.
Version : 4

Key to abbreviations : ADG = Australian Dangerous Goods
                      ATE = Acute Toxicity Estimate
                      BCF = Bioconcentration Factor
                      GHS = Globally Harmonized System of Classification and Labelling of Chemicals
                      IATA = International Air Transport Association
                      IBC = Intermediate Bulk Container
                      IMDG = International Maritime Dangerous Goods
                      LogPow = logarithm of the octanol/water partition coefficient
                      NOHSC = National Occupational Health and Safety Commission
                      SUSMP = Standard Uniform Schedule of Medicine and Poisons
                      UN = United Nations

Procedure used to derive the classification

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

References : Not available.

Indicates information that has changed from previously issued version.

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