# SAFETY DATA SHEET

**AffinityScript Multiple Temperature Reverse Transcriptase - 10 reactions, Part Number 5190-7277**

## Section 1. Identification

<table>
<thead>
<tr>
<th>Product identifier</th>
<th>: AffinityScript Multiple Temperature Reverse Transcriptase - 10 reactions, Part Number 5190-7277</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part no. (chemical kit)</td>
<td>5190-7277</td>
</tr>
</tbody>
</table>
| Part no. | AffinityScript Multi-Temp RT 600105-51  
10X AffinityScript RT Buffer 600100-52  
100 mM DTT 600098-53 |

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

<table>
<thead>
<tr>
<th>Material uses</th>
<th>Analytical reagent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td>0.01 ml (10 reactions)</td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td>1 ml</td>
</tr>
<tr>
<td>100 mM DTT</td>
<td>0.04 ml</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.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td></td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td></td>
</tr>
<tr>
<td>100 mM DTT</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 10 - 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td></td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td></td>
</tr>
<tr>
<td>100 mM DTT</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td></td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td></td>
</tr>
<tr>
<td>100 mM DTT</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 7.9%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td></td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td></td>
</tr>
<tr>
<td>100 mM DTT</td>
<td></td>
</tr>
</tbody>
</table>

### GHS label elements

<table>
<thead>
<tr>
<th>Signal word</th>
<th>: AffinityScript Multi-Temp RT</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td>No signal word.</td>
</tr>
<tr>
<td>100 mM DTT</td>
<td>No signal word.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazard statements</th>
<th>: AffinityScript Multi-Temp RT</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>100 mM DTT</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Precautionary statements</th>
<th>: AffinityScript Multi-Temp RT</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>100 mM DTT</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision : 22/11/2018  
Date of previous issue : 29/07/2016  
Version : 3
Section 2. Hazard(s) identification

Response:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
- 100 mM DTT
Not applicable.

Storage:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
- 100 mM DTT
Not applicable.

Disposal:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
- 100 mM DTT
Not applicable.

Supplemental label elements

Additional warning phrases:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
- 100 mM DTT
Not applicable.

Other hazards which do not result in classification:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
- 100 mM DTT
None known.

Section 3. Composition and ingredient information

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td>Glycerol</td>
<td>≥30 - ≤60</td>
<td>56-81-5</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

Description of necessary first aid measures

Eye contact:
- AffinityScript Multi-Temp RT
  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.
- 10X AffinityScript RT Buffer
  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.
- 100 mM DTT
  Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation:
- AffinityScript Multi-Temp RT
  Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- 10X AffinityScript RT Buffer
  Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Section 4. First aid measures

100 mM DTT
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact

AffinityScript Multi-Temp RT
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

10X AffinityScript RT Buffer
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

100 mM DTT
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion

AffinityScript Multi-Temp RT
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.

10X AffinityScript RT Buffer
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.

100 mM DTT
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

Eye contact

AffinityScript Multi-Temp RT
No known significant effects or critical hazards.

10X AffinityScript RT Buffer
No known significant effects or critical hazards.

100 mM DTT
No known significant effects or critical hazards.

Inhalation

AffinityScript Multi-Temp RT
No known significant effects or critical hazards.

10X AffinityScript RT Buffer
No known significant effects or critical hazards.

100 mM DTT
No known significant effects or critical hazards.

Skin contact

AffinityScript Multi-Temp RT
No known significant effects or critical hazards.

10X AffinityScript RT Buffer
No known significant effects or critical hazards.

100 mM DTT
No known significant effects or critical hazards.

Ingestion

AffinityScript Multi-Temp RT
No known significant effects or critical hazards.

10X AffinityScript RT Buffer
No known significant effects or critical hazards.

100 mM DTT
No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact

AffinityScript Multi-Temp RT
No specific data.

10X AffinityScript RT Buffer
No specific data.

100 mM DTT
No specific data.

Inhalation

AffinityScript Multi-Temp RT
No specific data.

10X AffinityScript RT Buffer
No specific data.

100 mM DTT
No specific data.

Skin contact

AffinityScript Multi-Temp RT
No specific data.

10X AffinityScript RT Buffer
No specific data.

100 mM DTT
No specific data.
## Section 4. First aid measures

### Ingestion

<table>
<thead>
<tr>
<th>成分</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
<th>100 mM DTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>症状</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>成分</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
<th>100 mM DTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>症状</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
<td>In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.</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>成分</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
<th>100 mM DTT</th>
</tr>
</thead>
</table>

### Protection of first-aiders

<table>
<thead>
<tr>
<th>成分</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
<th>100 mM DTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>症状</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

### See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

#### Suitable extinguishing media

<table>
<thead>
<tr>
<th>成分</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
<th>100 mM DTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>灭火器</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
</tbody>
</table>

#### Unsuitable extinguishing media

<table>
<thead>
<tr>
<th>成分</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
<th>100 mM DTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>灭火器</td>
<td>None known.</td>
<td>None known.</td>
<td>None known.</td>
</tr>
</tbody>
</table>

### Specific hazards arising from the chemical

<table>
<thead>
<tr>
<th>成分</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
<th>100 mM DTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>症状</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
</tbody>
</table>

### Hazardous thermal decomposition products

<table>
<thead>
<tr>
<th>成分</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
<th>100 mM DTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>症状</td>
<td>Decomposition products may include the following materials: carbon dioxide, carbon monoxide</td>
<td>Decomposition products may include the following materials: carbon dioxide, carbon monoxide</td>
<td>Decomposition products may include the following materials: carbon dioxide, carbon monoxide</td>
</tr>
<tr>
<td>症状</td>
<td>Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds, metal oxide/oxides</td>
<td>Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, halogenated compounds, metal oxide/oxides</td>
<td></td>
</tr>
<tr>
<td>症状</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td>Decomposition products may include the following materials: carbon dioxide</td>
<td></td>
</tr>
</tbody>
</table>

### Date of issue/Date of revision: 22/11/2018

### Date of previous issue: 29/07/2016

### Version: 3
Section 5. Firefighting measures

Special protective actions for fire-fighters

- **AffinityScript Multi-Temp RT**
  - 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.

- **10X AffinityScript RT Buffer**
  - 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.

- **100 mM DTT**
  - 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

- **AffinityScript Multi-Temp RT**
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- **10X AffinityScript RT Buffer**
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- **100 mM DTT**
  - Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

- **AffinityScript Multi-Temp RT**
  - 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.

- **10X AffinityScript RT Buffer**
  - 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.

- **100 mM DTT**
  - 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

- **AffinityScript Multi-Temp RT**
  - 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".

- **10X AffinityScript RT Buffer**
  - 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".

- **100 mM DTT**
  - 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".
Section 6. Accidental release measures

Environmental precautions: AffinityScript Multi-Temp RT
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).

10X AffinityScript RT Buffer
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).

100 mM DTT
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

Methods for cleaning up: AffinityScript Multi-Temp RT
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.

10X AffinityScript RT Buffer
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.

100 mM DTT
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: AffinityScript Multi-Temp RT
Put on appropriate personal protective equipment (see Section 8).

10X AffinityScript RT Buffer
Put on appropriate personal protective equipment (see Section 8).

100 mM DTT
Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene: AffinityScript Multi-Temp RT
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.

10X AffinityScript RT Buffer
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.

100 mM DTT
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face...
### Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities**

**AffinityScript Multi-Temp RT**
- Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

**10X AffinityScript RT Buffer**
- Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

**100 mM DTT**
- Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 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><strong>AffinityScript Multi-Temp RT</strong></td>
<td>Safe Work Australia (Australia, 4/2018). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td><strong>Glycerol</strong></td>
<td></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**
Section 8. Exposure controls and personal protection

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance


Colour: AffinityScript Multi-Temp RT 10X AffinityScript RT Buffer 100 mM DTT Not available. Not available. Not available.

Odour: AffinityScript Multi-Temp RT 10X AffinityScript RT Buffer 100 mM DTT Not available. Not available. Not available.

Odour threshold: AffinityScript Multi-Temp RT 10X AffinityScript RT Buffer 100 mM DTT Not available. Not available. Not available.

pH: AffinityScript Multi-Temp RT 10X AffinityScript RT Buffer 100 mM DTT 8 8.3 Not available.

Melting point: AffinityScript Multi-Temp RT 10X AffinityScript RT Buffer 100 mM DTT Not available. Not available. 0°C (32°F)

Boiling point: AffinityScript Multi-Temp RT 10X AffinityScript RT Buffer 100 mM DTT Not available. Not available. 100°C (212°F)

Flash point: AffinityScript Multi-Temp RT 10X AffinityScript RT Buffer 100 mM DTT Not available. Not available. Not available.

Evaporation rate: AffinityScript Multi-Temp RT 10X AffinityScript RT Buffer 100 mM DTT Not available. Not available. Not available.

Flammability (solid, gas): AffinityScript Multi-Temp RT 10X AffinityScript RT Buffer 100 mM DTT Not applicable. Not applicable. Not applicable.
Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
<th>100 mM DTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</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>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>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
<th>100 mM DTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>May react or be incompatible with oxidising materials.</td>
<td>May react or be incompatible with oxidising materials.</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
</tbody>
</table>
Section 10. Stability and reactivity

Hazardous decomposition products
- AffinityScript Multi-Temp RT
  Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- 10X AffinityScript RT Buffer
  Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- 100 mM DTT
  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>AffinityScript Multi-Temp RT</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Score</th>
<th>Species</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td>Eyes - Mild irritant</td>
<td>-</td>
<td>Rabbit</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td>Skin - Mild irritant</td>
<td>-</td>
<td>Rabbit</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitisation
Not available.

Mutagenicity
- Conclusion/Summary : Not available.

Carcinogenicity
- Conclusion/Summary : Not available.

Reproductive toxicity
- Conclusion/Summary : Not available.

Teratogenicity
- Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on likely routes of exposure
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
- 100 mM DTT
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects
- Eye contact
  - AffinityScript Multi-Temp RT
  - 10X AffinityScript RT Buffer
  - 100 mM DTT
No known significant effects or critical hazards.

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## Section 11. Toxicological information

### Inhalation
- **AffinityScript Multi-Temp RT**: No known significant effects or critical hazards.
- **10X AffinityScript RT Buffer**: No known significant effects or critical hazards.
- **100 mM DTT**: No known significant effects or critical hazards.

### Skin contact
- **AffinityScript Multi-Temp RT**: No known significant effects or critical hazards.
- **10X AffinityScript RT Buffer**: No known significant effects or critical hazards.
- **100 mM DTT**: No known significant effects or critical hazards.

### Ingestion
- **AffinityScript Multi-Temp RT**: No known significant effects or critical hazards.
- **10X AffinityScript RT Buffer**: No known significant effects or critical hazards.
- **100 mM DTT**: No known significant effects or critical hazards.

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

#### Eye contact
- **AffinityScript Multi-Temp RT**: No specific data.
- **10X AffinityScript RT Buffer**: No specific data.
- **100 mM DTT**: No specific data.

#### Inhalation
- **AffinityScript Multi-Temp RT**: No specific data.
- **10X AffinityScript RT Buffer**: No specific data.
- **100 mM DTT**: No specific data.

#### Skin contact
- **AffinityScript Multi-Temp RT**: No specific data.
- **10X AffinityScript RT Buffer**: No specific data.
- **100 mM DTT**: No specific data.

#### Ingestion
- **AffinityScript Multi-Temp RT**: No specific data.
- **10X AffinityScript RT Buffer**: No specific data.
- **100 mM DTT**: 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**
  - **General**: No known significant effects or critical hazards.
  - **Carcinogenicity**: No known significant effects or critical hazards.
  - **Mutagenicity**: No known significant effects or critical hazards.
  - **Teratogenicity**: No known significant effects or critical hazards.
  - **Developmental effects**: No known significant effects or critical hazards.
  - **Fertility effects**: No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

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**Date of previous issue**: 29/07/2016  
**Version**: 3  
**11/14**
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 mM DTT</td>
<td>33333.3 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
</tr>
</tbody>
</table>

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>AffinityScript Multi-Temp RT Glycerol</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT Glycerol</td>
<td>301D Ready Biodegradability - Closed Bottle Test</td>
<td>93 % - 30 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP ow</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT Glycerol</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

Soil/water partition coefficient (Koc): 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 be carried out in accordance with the 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 spill material and runoff and contact with soil, waterways, drains and sewers.
Section 14. Transport 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

International regulations

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

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

Stockholm Convention on Persistent Organic Pollutants
Not listed.

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

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.
Japan : Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
Malaysia : Not determined.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : Not determined.
Taiwan : All components are listed or exempted.
Thailand : Not determined.
Turkey : Not determined.
United States : All components are listed or exempted.
Viet Nam : Not determined.
Section 16. Any other relevant information

History
Date of issue/Date of revision : 22/11/2018
Date of previous issue : 29/07/2016
Version : 3
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>
<td></td>
</tr>
</tbody>
</table>

References : Not available.

Indicates information that has changed from previously issued version.

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