SAFETY DATA SHEET

Custom AffinityScript Multiple Temperature Reverse Transcriptase, Part Number 930107

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

1.1 Product identifier

Product name: Custom AffinityScript Multiple Temperature Reverse Transcriptase, Part Number 930107
Part No. (Kit): 930107
Part No.: AffinityScript Multi-Temp RT
10X AffinityScript RT Buffer

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

<table>
<thead>
<tr>
<th>Identified uses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical reagent.</td>
<td></td>
</tr>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td>10 reactions</td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td>1 ml</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: AffinityScript Multi-Temp RT Mixture
10X AffinityScript RT Buffer Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Not classified.

Ingredients of unknown toxicity:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer

Ingredients of unknown ecotoxicity:
- 10X AffinityScript RT Buffer

Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%
Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 10 - 30%
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%
Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 7.9%

See Section 16 for the full text of the H statements declared above.

Date of issue/Date of revision: 12/06/2017
SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
  - No signal word.

Hazard statements:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
  - No known significant effects or critical hazards.

Precautionary statements:

Prevention:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
  - Not applicable.

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

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

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

Hazardous ingredients:
  - 10X AffinityScript RT Buffer
    - Not applicable.

Supplemental label elements:
  - AffinityScript Multi-Temp RT
  - 10X AffinityScript RT Buffer
    - Safety data sheet available on request.

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

Special packaging requirements:

Tactile warning of danger:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
  - Not applicable.

2.3 Other hazards

Other hazards which do not result in classification:
- AffinityScript Multi-Temp RT
- 10X AffinityScript RT Buffer
  - None known.
SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td>Glycerol</td>
<td>≥50 - ≤75</td>
<td>Not classified.</td>
<td>[2]</td>
</tr>
<tr>
<td></td>
<td>REACH #: Annex V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC: 200-289-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAS: 56-81-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>&lt;10</td>
<td>Skin Irrit. 2, H315</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td>EC: 214-684-5</td>
<td></td>
<td>Eye Irrit. 2, H319</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAS: 1185-53-1</td>
<td></td>
<td>STOT SE 3, H335</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>See Section 16 for the full text</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>of the H statements declared</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>above.</td>
<td></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.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of 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.

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.

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.
## SECTION 4: First aid measures

### Ingestion

<table>
<thead>
<tr>
<th>Compound</th>
<th>First Aid Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td>Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

### Protection of first-aiders

<table>
<thead>
<tr>
<th>Compound</th>
<th>Protection Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

### 4.2 Most important symptoms and effects, both acute and delayed

#### Potential acute health effects

<table>
<thead>
<tr>
<th>Contact</th>
<th>AffinityScript Multi-Temp RT</th>
<th>AffinityScript Multi-Temp RT Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</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>
</tr>
<tr>
<td>Ingestion</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>Contact</th>
<th>AffinityScript Multi-Temp RT</th>
<th>AffinityScript Multi-Temp RT Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</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>
</tr>
<tr>
<td>Ingestion</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

### 4.3 Indication of any immediate medical attention and special treatment needed

**Date of issue/Date of revision**: 12/06/2017
SECTION 4: First aid measures

Notes to physician
AffinityScript Multi-Temp RT
10X AffinityScript RT Buffer
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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.

Specific treatments
AffinityScript Multi-Temp RT
10X AffinityScript RT Buffer
No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
AffinityScript Multi-Temp RT
10X AffinityScript RT Buffer
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media
AffinityScript Multi-Temp RT
10X AffinityScript RT Buffer
None known.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
AffinityScript Multi-Temp RT
10X AffinityScript RT Buffer
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

10X AffinityScript RT Buffer
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters
AffinityScript Multi-Temp RT
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.

Special protective equipment for fire-fighters
AffinityScript Multi-Temp RT
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. 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.

Date of issue/Date of revision: 12/06/2017
**SECTION 6: Accidental release measures**

### 6.1 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.

**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".

### 6.2 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).

### 6.3 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.

### 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**
- **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).

**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**
  - Eating, drinking and smoking should be prohibited in areas...
SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Buffer</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X AffinityScript RT Buffer</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. See Section 10 for incompatible materials before handling or use.</td>
</tr>
</tbody>
</table>

7.3 Specific end use(s)

<table>
<thead>
<tr>
<th>Recommendations : AffinityScript Multi-Temp RT</th>
<th>Industrial applications, Professional applications.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td>Industrial applications, Professional applications.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industrial sector specific solutions : AffinityScript Multi-Temp RT</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT Glycerol</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m³ 8 hours. Form: Mist</td>
</tr>
</tbody>
</table>

**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.
SECTION 8: Exposure controls/personal protection

**DNELs/DMELs**
No DNELs/DMELs available.

**PNECs**
No PNECs available

8.2 Exposure controls

**Appropriate engineering controls**

**Individual protection measures**

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

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

**Skin protection**

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

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

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

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

**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**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>AffinityScript Multi-Temp RT Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X AffinityScript RT Buffer Liquid.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Colour</th>
<th>AffinityScript Multi-Temp RT Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X AffinityScript RT Buffer Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Odour</th>
<th>AffinityScript Multi-Temp RT Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10X AffinityScript RT Buffer Not available.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 12/06/2017
## SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>8</td>
<td>8.3</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility(ies)</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>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 12/06/2017
### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

#### 9.2 Other information

No additional information.

### SECTION 10: Stability and reactivity

<table>
<thead>
<tr>
<th>Topic</th>
<th>AffinityScript Multi-Temp RT</th>
<th>10X AffinityScript RT Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10.1 Reactivity</strong></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><strong>10.2 Chemical stability</strong></td>
<td>The product is stable.</td>
<td>The product is stable.</td>
</tr>
<tr>
<td><strong>10.3 Possibility of hazardous reactions</strong></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><strong>10.4 Conditions to avoid</strong></td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>10.5 Incompatible materials</strong></td>
<td>May react or be incompatible with oxidising materials.</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
<tr>
<td><strong>10.6 Hazardous decomposition products</strong></td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Not available.

Acute toxicity estimates
Not available.

Irritation/Corrosion
Conclusion/Summary: Not available.

Sensitiser
Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Category</th>
<th>Route of exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
<td></td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
<td></td>
<td>Routes of entry anticipated: Oral, Dermal, Inhalation.</td>
</tr>
</tbody>
</table>

Potential acute health effects

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: AffinityScript Multi-Temp RT
          : No specific data.

Ingestion: AffinityScript Multi-Temp RT
          : No specific data.
## SECTION 11: Toxicological information

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

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

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

#### Short term exposure
- **Potential immediate effects**
  - No known significant effects or critical hazards.
- **Potential delayed effects**
  - No known significant effects or critical hazards.

#### Long term exposure
- **Potential immediate effects**
  - No known significant effects or critical hazards.
- **Potential delayed effects**
  - No known significant effects or critical hazards.

### Potential chronic health effects

#### General
- **AffinityScript Multi-Temp RT**
  - No known significant effects or critical hazards.
- **10X AffinityScript RT Buffer**
  - No known significant effects or critical hazards.

#### Carcinogenicity
- **AffinityScript Multi-Temp RT**
  - No known significant effects or critical hazards.
- **10X AffinityScript RT Buffer**
  - No known significant effects or critical hazards.

#### Mutagenicity
- **AffinityScript Multi-Temp RT**
  - No known significant effects or critical hazards.
- **10X AffinityScript RT Buffer**
  - No known significant effects or critical hazards.

#### Teratogenicity
- **AffinityScript Multi-Temp RT**
  - No known significant effects or critical hazards.
- **10X AffinityScript RT Buffer**
  - No known significant effects or critical hazards.

#### Developmental effects
- **AffinityScript Multi-Temp RT**
  - No known significant effects or critical hazards.
- **10X AffinityScript RT Buffer**
  - No known significant effects or critical hazards.

#### Fertility effects
- **AffinityScript Multi-Temp RT**
  - No known significant effects or critical hazards.
- **10X AffinityScript RT Buffer**
  - 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.

**Date of issue/Date of revision**: 12/06/2017
SECTION 12: Ecological information

12.4 Mobility in soil
   Soil/water partition coefficient (K_{OC}) : 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.

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 spill material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

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.
SECTION 15: Regulatory information

<table>
<thead>
<tr>
<th>Annex XVII - Restrictions on the market, placing on the market and use of certain dangerous substances, mixtures and articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript Multi-Temp RT</td>
</tr>
<tr>
<td>10X AffinityScript RT Buffer</td>
</tr>
</tbody>
</table>

Other EU regulations

Ozone depleting substances (1005/2009/EU)
Not listed.

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.

Inventory list

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Canada</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>China</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Europe</td>
<td>All components are listed or exempted.</td>
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<tr>
<td>Japan</td>
<td>Japan inventory (ENCS): Not determined.</td>
</tr>
<tr>
<td></td>
<td>Japan inventory (ISHL): Not determined.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Not determined.</td>
</tr>
<tr>
<td>New Zealand</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Philippines</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Taiwan</td>
<td>All components are listed or exempted.</td>
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<td>Thailand</td>
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<td>Turkey</td>
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<td>United States</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

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

Date of issue/Date of revision: 12/06/2017
Custom AffinityScript Multiple Temperature Reverse Transcriptase, Part Number 930107

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

10X AffinityScript RT Buffer
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.

Full text of classifications [CLP/GHS]

10X AffinityScript RT Buffer
- Eye Irrit. 2, H319: SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
- Skin Irrit. 2, H315: SKIN CORROSION/IRRITATION - Category 2
- STOT SE 3, H335: SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

Date of issue/Date of revision: 12/06/2017
Date of previous issue: No previous validation.
Version: 1

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