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

1.1 Product identifier

Product name: D5000 Reagents, Part Number 5067-5589

Part no. (chemical kit): 5067-5589

Part no.:
- D5000 Sample Buffer: 5190-7744
- D5000 Ladder: 5067-5590

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

Material uses:
- Analytical chemistry.
- D5000 Sample Buffer: 1 x 1300 µl vials
- D5000 Ladder, Part Number 5067-5590: 1 x 10 µl vials

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:
- D5000 Sample Buffer: Mixture
- D5000 Ladder: Mixture

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

Ingredients of unknown toxicity:
- D5000 Sample Buffer: Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word:
- D5000 Sample Buffer: No signal word.
- D5000 Ladder: No signal word.

Hazard statements:
- D5000 Sample Buffer: No known significant effects or critical hazards.
- D5000 Ladder: No known significant effects or critical hazards.

Precautionary statements:

Prevention:
- D5000 Sample Buffer: Not applicable.
- D5000 Ladder: Not applicable.
SECTION 2: Hazards identification

Response: D5000 Sample Buffer Not applicable. 
D5000 Ladder Not applicable.

Storage: D5000 Sample Buffer Not applicable.
D5000 Ladder Not applicable.

Disposal: D5000 Sample Buffer Not applicable.
D5000 Ladder Not applicable.

Supplemental label elements: D5000 Sample Buffer Not applicable.
D5000 Ladder Not applicable.

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

NOT APPLICABLE.

SECTION 3: Composition/information on ingredients

3.1 Substances: D5000 Sample Buffer Mixture 
D5000 Ladder Mixture

<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>
</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
3. Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
4. Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
5. Substance of equivalent concern
6. Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact: D5000 Sample 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. 
D5000 Ladder 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.

Date of issue/Date of revision: 26/03/2018

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### SECTION 4: First aid measures

**Inhalation**

<table>
<thead>
<tr>
<th>Reagent</th>
<th>First Aid Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D5000 Sample Buffer</strong></td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td><strong>D5000 Ladder</strong></td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

**Skin contact**

<table>
<thead>
<tr>
<th>Reagent</th>
<th>First Aid Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D5000 Sample Buffer</strong></td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td><strong>D5000 Ladder</strong></td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

**Ingestion**

<table>
<thead>
<tr>
<th>Reagent</th>
<th>First Aid Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D5000 Sample Buffer</strong></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><strong>D5000 Ladder</strong></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>Reagent</th>
<th>First Aid Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D5000 Sample Buffer</strong></td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td><strong>D5000 Ladder</strong></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>Health Effect</th>
<th>Reagent</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td><strong>D5000 Sample Buffer</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td><strong>D5000 Ladder</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td><strong>D5000 Sample Buffer</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td><strong>D5000 Ladder</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td><strong>D5000 Sample Buffer</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td><strong>D5000 Ladder</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td><strong>D5000 Sample Buffer</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td><strong>D5000 Ladder</strong></td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

#### Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Health Effect</th>
<th>Reagent</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye contact</strong></td>
<td><strong>D5000 Sample Buffer</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td><strong>D5000 Ladder</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td><strong>D5000 Sample Buffer</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td><strong>D5000 Ladder</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td><strong>D5000 Sample Buffer</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td><strong>D5000 Ladder</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td><strong>D5000 Sample Buffer</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td><strong>D5000 Ladder</strong></td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

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

#### Notes to physician

<table>
<thead>
<tr>
<th>Reagent</th>
<th>Notes to Physician</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D5000 Sample Buffer</strong></td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td><strong>D5000 Ladder</strong></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>Reagent</th>
<th>Specific Treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D5000 Sample Buffer</strong></td>
<td>No specific treatment.</td>
</tr>
<tr>
<td><strong>D5000 Ladder</strong></td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>
SECTION 5: Firefighting measures

5.1 Extinguishing media

| Suitable extinguishing media | D5000 Sample Buffer | Use an extinguishing agent suitable for the surrounding fire. |
| D5000 Ladder | Use an extinguishing agent suitable for the surrounding fire. |

| Unsuitable extinguishing media | D5000 Sample Buffer | None known. |
| D5000 Ladder | None known. |

5.2 Special hazards arising from the substance or mixture

| Hazards from the substance or mixture | D5000 Sample Buffer | In a fire or if heated, a pressure increase will occur and the container may burst. |
| D5000 Ladder | In a fire or if heated, a pressure increase will occur and the container may burst. |

| Hazardous combustion products | D5000 Sample Buffer | Decomposition products may include the following materials: carbon dioxide, carbon monoxide. |
| D5000 Ladder | No specific data. |

5.3 Advice for firefighters

| Special precautions for fire-fighters | D5000 Sample 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. |
| D5000 Ladder | 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 | D5000 Sample 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. |
| D5000 Ladder | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

| For non-emergency personnel | D5000 Sample 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. |
| D5000 Ladder | 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 | D5000 Sample 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". |
| D5000 Ladder | 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". |

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## SECTION 6: Accidental release measures

### 6.2 Environmental precautions

**D5000 Sample 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).

**D5000 Ladder**

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**

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D5000 Sample Buffer</td>
<td>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.</td>
</tr>
<tr>
<td>D5000 Ladder</td>
<td>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.</td>
</tr>
</tbody>
</table>

### 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**

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D5000 Sample Buffer</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
</tr>
<tr>
<td>D5000 Ladder</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
</tr>
</tbody>
</table>

**Advice on general occupational hygiene**

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D5000 Sample Buffer</td>
<td>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</td>
</tr>
<tr>
<td>D5000 Ladder</td>
<td>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</td>
</tr>
</tbody>
</table>

### 7.2 Conditions for safe storage, including any incompatibilities

**Storage**

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D5000 Sample Buffer</td>
<td>Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). 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>
<tr>
<td>D5000 Ladder</td>
<td>Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). 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>

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SECTION 7: Handling and storage

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.

7.3 Specific end use(s)

Recommendations: D5000 Sample Buffer Industrial applications, Professional applications.
D5000 Ladder Industrial applications, Professional applications.

Industrial sector specific solutions: D5000 Sample Buffer Not applicable.
D5000 Ladder Not applicable.

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>D5000 Sample Buffer Sucrose</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.</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.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures: Hygiene measures: 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.
SECTION 8: Exposure controls/personal protection

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

<table>
<thead>
<tr>
<th>Appearance</th>
</tr>
</thead>
</table>
| Physical state | D5000 Sample Buffer Liquid.  
D5000 Ladder Liquid. |
| Colour | D5000 Sample Buffer Colourless.  
D5000 Ladder Colourless. |
| Odour | D5000 Sample Buffer Odourless.  
D5000 Ladder Odourless. |
| Odour threshold | D5000 Sample Buffer Not available.  
D5000 Ladder Not available. |
| pH | D5000 Sample Buffer 8  
D5000 Ladder 8 |
| Melting point/freezing point | D5000 Sample Buffer Not available.  
D5000 Ladder Not available. |
| Initial boiling point and boiling range | D5000 Sample Buffer close to 189°C  
D5000 Ladder 100°C |
| Flash point | D5000 Sample Buffer Not available.  
D5000 Ladder Not available. |
| Evaporation rate | D5000 Sample Buffer Not available.  
D5000 Ladder Not available. |
| Flammability (solid, gas) | D5000 Sample Buffer Not applicable.  
D5000 Ladder Not applicable. |
| Upper/lower flammability or explosive limits | D5000 Sample Buffer Not available.  
D5000 Ladder Not available. |
| Vapour pressure | D5000 Sample Buffer Not available.  
D5000 Ladder Not available. |
| Vapour density | D5000 Sample Buffer Not available.  
D5000 Ladder Not available. |
SECTION 9: Physical and chemical properties

Relative density
- D5000 Sample Buffer: Not available.
- D5000 Ladder: Not available.

Solubility(ies)
- D5000 Sample Buffer: Easily soluble in the following materials: cold water and hot water.
- D5000 Ladder: Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water
- D5000 Sample Buffer: Not available.
- D5000 Ladder: Not available.

Auto-ignition temperature
- D5000 Sample Buffer: Not available.
- D5000 Ladder: Not available.

Decomposition temperature
- D5000 Sample Buffer: Not available.
- D5000 Ladder: Not available.

Viscosity
- D5000 Sample Buffer: Not available.
- D5000 Ladder: Not available.

Explosive properties
- D5000 Sample Buffer: Not available.
- D5000 Ladder: Not available.

Oxidising properties
- D5000 Sample Buffer: Not available.
- D5000 Ladder: Not available.

9.2 Other information
No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity
- D5000 Sample Buffer: No specific test data related to reactivity available for this product or its ingredients.
- D5000 Ladder: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
- D5000 Sample Buffer: The product is stable.
- D5000 Ladder: The product is stable.

10.3 Possibility of hazardous reactions
- D5000 Sample Buffer: Under normal conditions of storage and use, hazardous reactions will not occur.
- D5000 Ladder: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid
- D5000 Sample Buffer: No specific data.
- D5000 Ladder: No specific data.

10.5 Incompatible materials
- D5000 Sample Buffer: May react or be incompatible with oxidising materials.
- D5000 Ladder: May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products
- D5000 Sample Buffer: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- D5000 Ladder: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Not available.

Acute toxicity estimates
Not available.

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D5000 Reagents, Part Number 5067-5589

SECTION 11: Toxicological information

**Carcinogenicity**
Conclusion/Summary: 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**
- D5000 Sample Buffer: Not available.
- D5000 Ladder: Not available.

**Potential acute health effects**

**Inhalation**
- D5000 Sample Buffer: No known significant effects or critical hazards.
- D5000 Ladder: No known significant effects or critical hazards.

**Ingestion**
- D5000 Sample Buffer: No known significant effects or critical hazards.
- D5000 Ladder: No known significant effects or critical hazards.

**Skin contact**
- D5000 Sample Buffer: No known significant effects or critical hazards.
- D5000 Ladder: No known significant effects or critical hazards.

**Eye contact**
- D5000 Sample Buffer: No known significant effects or critical hazards.
- D5000 Ladder: No known significant effects or critical hazards.

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

**Inhalation**
- D5000 Sample Buffer: No specific data.
- D5000 Ladder: No specific data.

**Ingestion**
- D5000 Sample Buffer: No specific data.
- D5000 Ladder: No specific data.

**Skin contact**
- D5000 Sample Buffer: No specific data.
- D5000 Ladder: No specific data.

**Eye contact**
- D5000 Sample Buffer: No specific data.
- D5000 Ladder: 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.

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**SECTION 11: Toxicological information**

**Potential chronic health effects**

<table>
<thead>
<tr>
<th>Description</th>
<th>D5000 Sample Buffer</th>
<th>D5000 Ladder</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Developmental effects</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Fertility effects</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**SECTION 12: Ecological information**

**12.1 Toxicity**

Conclusion/Summary: Not available.

**12.2 Persistence and degradability**

Not available.

**12.3 Bioaccumulative potential**

Not available.

**12.4 Mobility in soil**

<table>
<thead>
<tr>
<th>Description</th>
<th>D5000 Sample Buffer</th>
<th>D5000 Ladder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil/water partition coefficient (K_{OC})</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Mobility</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**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.
SECTION 13: Disposal considerations

Special precautions: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

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

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

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV
None of the components are listed.

Substances of very high concern
None of the components are listed.

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

D5000 Sample Buffer: Not applicable.
D5000 Ladder: Not applicable.

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

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SECTION 15: Regulatory information

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

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms
- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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

Full text of abbreviated H statements
Not applicable.

Full text of classifications [CLP/GHS]
Not applicable.

Date of issue/ Date of revision : 26/03/2018
Date of previous issue : 07/07/2016
Version : 2

Notice to reader

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