Section 1. Identification

Product identifier : D5000 Reagents, Part Number 5067-5589
Part no. (chemical kit) : 5067-5589
Part no. : D5000 Sample Buffer 5190-7744
         D5000 Ladder 5067-5590

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

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

Section 2. Hazard(s) identification

Classification of the substance or mixture
Not classified.

GHS label elements
Signal word : 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.
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
Additional warning phrases : D5000 Sample Buffer Not applicable.
                            D5000 Ladder Not applicable.

Other hazards which do not result in classification : D5000 Sample Buffer None known.
                                                  D5000 Ladder None known.

Date of issue/Date of revision : 26/03/2018   Date of previous issue : 07/07/2016   Version : 3
Section 3. Composition and ingredient information

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>D5000 Sample Buffer</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D5000 Ladder</td>
<td>Mixture</td>
</tr>
</tbody>
</table>

### CAS number/other identifiers

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>D5000 Sample Buffer</td>
<td>≤10</td>
<td>57-50-1</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**

- **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.

**Inhalation**

- **D5000 Sample Buffer**
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

- **D5000 Ladder**
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact**

- **D5000 Sample Buffer**
  - Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

- **D5000 Ladder**
  - Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion**

- **D5000 Sample 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.

- **D5000 Ladder**
  - 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**

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

- **D5000 Ladder**
  - No known significant effects or critical hazards.

**Inhalation**

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

- **D5000 Ladder**
  - No known significant effects or critical hazards.
Section 4. First aid measures

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

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

**Protection of first-aiders**:
No action shall be taken involving any personal risk or without suitable training.

**Over-exposure signs/symptoms**:

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

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

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

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

**Notes to physician**:

- D5000 Sample Buffer
  Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

- D5000 Ladder
  Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**:

- D5000 Sample Buffer D5000 Ladder
  No specific treatment.

**Protection of first-aiders**:

- D5000 Sample Buffer D5000 Ladder
  No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

**Extinguishing media**

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

- **Unsuitable extinguishing media**: D5000 Sample Buffer D5000 Ladder
  None known.

**Specific hazards arising from the chemical**:

- D5000 Sample Buffer D5000 Ladder
  In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products**:

- D5000 Sample Buffer D5000 Ladder
  Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  No specific data.

**Special protective actions for fire-fighters**:

- D5000 Sample Buffer 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.
**Section 5. Firefighting measures**

**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.
- 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.

**Section 6. Accidental release measures**

**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 spill 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 spill 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".

**Environmental precautions**
- D5000 Sample Buffer: Avoid dispersal of spill 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 spill 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
- D5000 Sample 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.
- D5000 Ladder: 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:
- D5000 Sample Buffer: Put on appropriate personal protective equipment (see Section 8).
- D5000 Ladder: Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene:
- D5000 Sample 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.
- D5000 Ladder: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities:
- D5000 Sample Buffer: 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.
- D5000 Ladder: 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.

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>D5000 Sample Buffer</td>
<td>Safe Work Australia (Australia, 1/2014).</td>
</tr>
<tr>
<td>Sucrose</td>
<td>TWA: 10 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Section 8. Exposure controls and personal protection

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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.

Section 9. Physical and chemical properties

Appearance

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: D5000 Sample Buffer Not available.
D5000 Ladder 0°C (32°F)

Boiling point: D5000 Sample Buffer Not available.
D5000 Ladder 100°C (212°F)

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.

Lower and upper explosive (flammable) limits: D5000 Sample Buffer Not available.
D5000 Ladder Not available.

Vapour pressure: D5000 Sample Buffer Not available.
D5000 Ladder Not available.
Section 9. Physical and chemical properties

Vapour density: D5000 Sample Buffer Not available.  
D5000 Ladder Not available.

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

Solubility: 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.

Section 10. Stability and reactivity

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.

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

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.

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

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

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

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>D5000 Sample Buffer Sucrose</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>29700 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion
Not available.

Sensitisation
Not available.
Section 11. Toxicological information

**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**
- **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**: Not available.

**Potential acute health effects**
- **Eye contact**:
  - D5000 Sample Buffer: No known significant effects or critical hazards.
  - D5000 Ladder: No known significant effects or critical hazards.
- **Inhalation**:
  - 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.
- **Ingestion**:
  - 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**
- **Eye contact**:
  - D5000 Sample Buffer: No specific data.
  - D5000 Ladder: No specific data.
- **Inhalation**:
  - D5000 Sample Buffer: No specific data.
  - D5000 Ladder: No specific data.
- **Skin contact**:
  - D5000 Sample Buffer: No specific data.
  - D5000 Ladder: No specific data.
- **Ingestion**:
  - 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.

**Potential chronic health effects**
- **General**:
  - D5000 Sample Buffer: No known significant effects or critical hazards.
  - D5000 Ladder: No known significant effects or critical hazards.
- **Carcinogenicity**:
  - D5000 Sample Buffer: No known significant effects or critical hazards.
  - D5000 Ladder: No known significant effects or critical hazards.
Section 11. Toxicological information

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

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

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

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

**(Mutagenicity, Teratogenicity, Developmental effects, Fertility effects)**

Numerical measures of toxicity

**Acute toxicity estimates**
Not available.

Section 12. Ecological information

**Toxicity**
Not available.

**Persistence and degradability**
Not available.

**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>D5000 Sample Buffer Sucrose</td>
<td>-3.7</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

**Soil/water partition coefficient (K_{oc})**
Not available.

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

Section 13. Disposal considerations

**Disposal methods**
The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
## Section 14. Transport information

**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**
- 6

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

**International regulations**
- **Chemical Weapon Convention List Schedules I, II & III Chemicals**: Not listed.
- **Stockholm Convention on Persistent Organic Pollutants**: Not listed.
- **UNECE Aarhus Protocol on POPs and Heavy Metals**: Not listed.

**Inventory list**

<table>
<thead>
<tr>
<th>Country</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Canada</td>
<td>Not determined.</td>
</tr>
<tr>
<td>China</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Europe</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>
| 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.|

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

**Date of previous issue**: 07/07/2016

**Version**: 3
Section 16. Any other relevant information

### History

| Date of issue/Date of revision | : 26/03/2018 |
| Date of previous issue         | : 07/07/2016 |
| 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.

### Notice to reader

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