Section 1. Identification

Product identifier : High Sensitivity D5000 Reagents, Part Number 5067-5593
Part No. (Chemical Kit) : 5067-5593
Part No. : High Sensitivity D5000 Sample Buffer 5190-7745
High Sensitivity D5000 Ladder 5067-5594

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

Analytical chemistry.
- High Sensitivity D5000 Sample Buffer 1 x 300 µl vials
- High Sensitivity D5000 Ladder 1 x 20 µl vials

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 : High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder

No signal word.

Hazard statements
High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder

No known significant effects or critical hazards.

Precautionary statements
Prevention : High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder

Not applicable.

Response : High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder

Not applicable.

Storage : High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder

Not applicable.

Disposal : High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder

Not applicable.
Section 2. Hazard(s) identification

Supplemental label elements:
- High Sensitivity D5000 Sample Buffer: Not applicable.
- High Sensitivity D5000 Ladder: Not applicable.

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

Section 3. Composition and ingredient information

Substance/mixture:
- High Sensitivity D5000 Sample Buffer: Mixture
- High Sensitivity D5000 Ladder: Mixture

CAS number/other identifiers:

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>(w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>Sucrose</td>
<td>≥10 - ≤30</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures:

Eye contact:
- High Sensitivity 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.
- High Sensitivity 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:
- High Sensitivity D5000 Sample Buffer: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- High Sensitivity 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:
- High Sensitivity D5000 Sample Buffer: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- High Sensitivity D5000 Ladder: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion:
- High Sensitivity 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.
- High Sensitivity 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.
Section 4. First aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder
No known significant effects or critical hazards.

Inhalation: High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder
No known significant effects or critical hazards.

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

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

Over-exposure signs/symptoms

Eye contact: High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder
No specific data.

Inhalation: High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder
No specific data.

Skin contact: High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder
No specific data.

Ingestion: High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder
No specific data.

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

Notes to physician: High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: High Sensitivity D5000 Sample Buffer
High Sensitivity D5000 Ladder
No specific treatment.

Protection of first-aiders: High Sensitivity D5000 Sample Buffer
High Sensitivity 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**
- High Sensitivity D5000 Sample Buffer
- High Sensitivity D5000 Ladder

Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**
- High Sensitivity D5000 Sample Buffer
- High Sensitivity D5000 Ladder

None known.

Specific hazards arising from the chemical

- High Sensitivity D5000 Sample Buffer
- High Sensitivity D5000 Ladder

In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

- High Sensitivity D5000 Sample Buffer
- High Sensitivity D5000 Ladder

Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide

No specific data.

Special protective actions for fire-fighters

- High Sensitivity D5000 Sample Buffer
- High Sensitivity 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

- High Sensitivity D5000 Sample Buffer
- High Sensitivity 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**
- High Sensitivity D5000 Sample Buffer
- High Sensitivity 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**
- High Sensitivity D5000 Sample Buffer
- High Sensitivity 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".
### Section 6. Accidental release measures

**Environmental precautions**

- **High Sensitivity 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).

- **High Sensitivity 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).

**Methods and material for containment and cleaning up**

**Methods for cleaning up**

- **High Sensitivity 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.

- **High Sensitivity 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**

- **High Sensitivity D5000 Sample Buffer**
  - Put on appropriate personal protective equipment (see Section 8).

- **High Sensitivity D5000 Ladder**
  - Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene**

- **High Sensitivity 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.

- **High Sensitivity 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**

- **High Sensitivity D5000 Sample Buffer**
  - Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

- **High Sensitivity 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...
Section 7. Handling and storage

from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls and personal protection

### Control parameters

#### Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Sucrose</td>
<td></td>
</tr>
</tbody>
</table>

#### Appropriate engineering controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Environmental exposure controls

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

### Individual protection measures

#### 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**
- **High Sensitivity D5000 Sample Buffer**: Liquid.
- **High Sensitivity D5000 Ladder**: Liquid.

**Colour**
- **High Sensitivity D5000 Sample Buffer**: Colourless.
- **High Sensitivity D5000 Ladder**: Colourless.

**Odour**
- **High Sensitivity D5000 Sample Buffer**: Odourless.
- **High Sensitivity D5000 Ladder**: Odourless.

**Odour threshold**
- **High Sensitivity D5000 Sample Buffer**: Not available.
- **High Sensitivity D5000 Ladder**: Not available.

**pH**
- **High Sensitivity D5000 Sample Buffer**: 8
- **High Sensitivity D5000 Ladder**: 8

**Melting point**
- **High Sensitivity D5000 Sample Buffer**: Not available.
- **High Sensitivity D5000 Ladder**: 0°C (32°F)

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

**Flash point**
- **High Sensitivity D5000 Sample Buffer**: Not available.
- **High Sensitivity D5000 Ladder**: Not available.

**Evaporation rate**
- **High Sensitivity D5000 Sample Buffer**: Not available.
- **High Sensitivity D5000 Ladder**: Not available.

**Flammability (solid, gas)**
- **High Sensitivity D5000 Sample Buffer**: Not applicable.
- **High Sensitivity D5000 Ladder**: Not applicable.

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

**Vapour pressure**
- **High Sensitivity D5000 Sample Buffer**: Not available.
- **High Sensitivity D5000 Ladder**: Not available.

**Vapour density**
- **High Sensitivity D5000 Sample Buffer**: Not available.
- **High Sensitivity D5000 Ladder**: Not available.

**Relative density**
- **High Sensitivity D5000 Sample Buffer**: Not available.
- **High Sensitivity D5000 Ladder**: Not available.
### Section 9. Physical and chemical properties

**Solubility**
- **High Sensitivity D5000 Sample Buffer**
  - Easily soluble in the following materials: cold water and hot water.
- **High Sensitivity D5000 Ladder**
  - Easily soluble in the following materials: cold water and hot water.

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

**Auto-ignition temperature**
- **High Sensitivity D5000 Sample Buffer**
  - Not available.
- **High Sensitivity D5000 Ladder**
  - Not available.

**Decomposition temperature**
- **High Sensitivity D5000 Sample Buffer**
  - Not available.
- **High Sensitivity D5000 Ladder**
  - Not available.

**Viscosity**
- **High Sensitivity D5000 Sample Buffer**
  - Not available.
- **High Sensitivity D5000 Ladder**
  - Not available.

### Section 10. Stability and reactivity

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

**Chemical stability**
- **High Sensitivity D5000 Sample Buffer**
  - The product is stable.
- **High Sensitivity D5000 Ladder**
  - The product is stable.

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

**Conditions to avoid**
- **High Sensitivity D5000 Sample Buffer**
  - No specific data.
- **High Sensitivity D5000 Ladder**
  - No specific data.

**Incompatible materials**
- **High Sensitivity D5000 Sample Buffer**
  - May react or be incompatible with oxidising materials.
- **High Sensitivity D5000 Ladder**
  - May react or be incompatible with oxidising materials.

**Hazardous decomposition products**
- **High Sensitivity D5000 Sample Buffer**
  - Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **High Sensitivity 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>High Sensitivity D5000</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>29700 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Sample Buffer Sucrose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation/Corrosion
Not available.

Sensitisation
Not available.

Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

Teratogenicity
Not available.

Specific target organ toxicity (single exposure)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on likely routes of exposure

Potential acute health effects

Eye contact

Inhalation

Skin contact

Ingestion

Symptoms related to the physical, chemical and toxicological characteristics

Date of issue/Date of revision : 07/07/2016  Date of previous issue : 09/04/2014  Version : 2
Section 11. Toxicological information

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

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

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

**Ingestion**
- High Sensitivity D5000 Sample Buffer: No specific data.
- High Sensitivity 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**
- No available.

**General**
- High Sensitivity D5000 Sample Buffer: No known significant effects or critical hazards.
- High Sensitivity D5000 Ladder: No known significant effects or critical hazards.

**Carcinogenicity**
- High Sensitivity D5000 Sample Buffer: No known significant effects or critical hazards.
- High Sensitivity D5000 Ladder: No known significant effects or critical hazards.

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

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

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

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

**Numerical measures of toxicity**

**Acute toxicity estimates**
- Not available.
Section 11. Toxicological information

Section 12. Ecological information

**Toxicity**
Not available.

**Persistence and degradability**
Not available.

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity 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<sub>oc</sub>): Not available.

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

Section 13. Disposal considerations

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

Section 14. Transport information

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

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

**Transport in bulk according to Annex II of Marpol and the IBC Code**: Not available.
Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons
6

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

Australia inventory (AICS) : Not determined.

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 Inform Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

International lists

National inventory

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.
Turkey : Not determined.
United States : Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 07/07/2016
Date of previous issue : 09/04/2014
Version : 2

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
Section 16. Any other relevant information

**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.

**Notice to reader**

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