SAFETY DATA SHEET

High Sensitivity D5000 Reagents, Part Number 5067-5593

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

1.1 Product identifier

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

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

Identified uses

<table>
<thead>
<tr>
<th>Product</th>
<th>Use</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>1 x 300 µl vials</td>
<td></td>
</tr>
<tr>
<td>High Sensitivity D5000 Ladder</td>
<td>1 x 20 µl vials</td>
<td></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 : High Sensitivity D5000 Mixture
                   : Sample Buffer
                   : High Sensitivity D5000 Mixture
                   : Ladder

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

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 : High Sensitivity D5000 No signal word.
             : Sample Buffer No signal word.
             : High Sensitivity D5000 No signal word.
             : Ladder

Hazard statements : High Sensitivity D5000 No known significant effects or critical hazards.
                   : Sample Buffer
                   : High Sensitivity D5000 No known significant effects or critical hazards.
                   : Ladder
SECTION 2: Hazards identification

Precautionary statements

Prevention: High Sensitivity D5000 Sample Buffer Not applicable. High Sensitivity D5000 Ladder Not applicable.

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

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

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

Hazardous ingredients: No hazardous ingredient

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


Special packaging requirements:

Tactile warning of danger: High Sensitivity D5000 Sample Buffer Not applicable. High Sensitivity D5000 Ladder Not applicable.

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures: High Sensitivity D5000 Sample Buffer Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
<th>Type</th>
</tr>
</thead>
</table>

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

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.

Date of issue/Date of revision: 07/07/2016
SECTION 3: Composition/information on ingredients

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit 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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact

<table>
<thead>
<tr>
<th>Substance</th>
<th>First aid measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>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.</td>
</tr>
<tr>
<td>High Sensitivity D5000 Ladder</td>
<td>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.</td>
</tr>
</tbody>
</table>

Inhalation

<table>
<thead>
<tr>
<th>Substance</th>
<th>First aid measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</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>High Sensitivity D5000 Ladder</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>Substance</th>
<th>First aid measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>High Sensitivity D5000 Ladder</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>Substance</th>
<th>First aid measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample 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. 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>High Sensitivity D5000 Ladder</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. 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>Substance</th>
<th>First aid measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>High Sensitivity D5000 Ladder</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>Substance</th>
<th>Symptoms and effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>High Sensitivity D5000 Ladder</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Inhalation

<table>
<thead>
<tr>
<th>Substance</th>
<th>Symptoms and effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>High Sensitivity D5000 Ladder</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

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.

4.3 Indication of any immediate medical attention and special treatment needed

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.

SECTION 5: Firefighting measures

5.1 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.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
:- High Sensitivity D5000 Sample Buffer High Sensitivity D5000 Ladder
Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
No specific data.
SECTION 5: Firefighting measures

5.3 Advice for firefighters

Special precautions for fire-fighters:
- High Sensitivity 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. 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: 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.
- 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. 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:
- High Sensitivity 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.
- 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: 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".
- 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".

6.2 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).

6.3 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 6: Accidental release measures

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**
- High Sensitivity D5000 Sample Buffer
- High Sensitivity D5000 Ladder

**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.

7.2 Conditions for safe storage, including any incompatibilities

**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).

7.3 Specific end use(s)

**Recommendations**
- Industrial applications, Professional applications.

**Industrial sector specific solutions**
- 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>High Sensitivity D5000 Sample Buffer</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011).</td>
</tr>
<tr>
<td>Sucrose</td>
<td>STEL: 20 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>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.

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 8: Exposure controls/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.

SECTION 9: Physical and chemical properties

9.1 Information on basic 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/freezing point | High Sensitivity D5000 Sample Buffer | Not available. |
| High Sensitivity D5000 Ladder | 0°C |

| Initial boiling point and boiling range | High Sensitivity D5000 Sample Buffer | close to 189°C |
| High Sensitivity D5000 Ladder | 100°C |

| 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. |

| Upper/lower flammability or explosive 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. |
## SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>High Sensitivity D5000 Sample Buffer</th>
<th>High Sensitivity D5000 Ladder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>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>
<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>Subsection</th>
<th>High Sensitivity D5000 Sample Buffer</th>
<th>High Sensitivity D5000 Ladder</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1 Reactivity</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>10.2 Chemical stability</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>10.3 Possibility of hazardous reactions</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>10.4 Conditions to avoid</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 07/07/2016
SECTION 10: Stability and reactivity

10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Compatibility Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
<tr>
<td>High Sensitivity D5000 Ladder</td>
<td>May react or be incompatible with oxidising materials.</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Material</th>
<th>Decomposition Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td>High Sensitivity D5000 Ladder</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.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

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

<table>
<thead>
<tr>
<th>Route</th>
<th>Material</th>
<th>Toxicological Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>High Sensitivity D5000 Ladder</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Potential acute health effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Material</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>High Sensitivity D5000 Ladder</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>High Sensitivity D5000 Ladder</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>High Sensitivity D5000 Ladder</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>High Sensitivity D5000 Ladder</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Symptoms related to the physical, chemical and toxicological characteristics

<table>
<thead>
<tr>
<th>Route</th>
<th>Material</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>High Sensitivity D5000 Ladder</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>High Sensitivity D5000 Sample Buffer</td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>High Sensitivity D5000 Ladder</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

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SECTION 11: Toxicological information

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

High Sensitivity D5000 Ladder
No known significant effects or critical hazards.

Potential chronic health effects

General
No known significant effects or critical hazards.

Carcinogenicity
No known significant effects or critical hazards.

Mutagenicity
No known significant effects or critical hazards.

Teratogenicity
No known significant effects or critical hazards.

Developmental effects
No known significant effects or critical hazards.

Fertility effects
No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity
Conclusion/Summary
Not available.

12.2 Persistence and degradability
Not available.
SECTION 12: Ecological information

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil
Soil/water partition coefficient (K<sub>OC</sub>) : 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.

Date of issue/Date of revision : 07/07/2016
SECTION 15: Regulatory information

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

- High Sensitivity D5000 Sample Buffer: Not applicable.
- High Sensitivity D5000 Ladder: Not applicable.

Other EU regulations:

- Europe inventory: Not determined.

Seveso Directive:

This product is not controlled under the Seveso Directive.

National regulations:

International regulations:

Chemical Weapon Convention List Schedules I, II & III Chemicals:

Not listed.


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:

- Australia: Not determined.
- Canada: Not determined.
- China: All components are listed or exempted.
- 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.

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]

Date of issue/Date of revision: 07/07/2016
**SECTION 16: Other information**

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<th>Classification</th>
<th>Justification</th>
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**Date of issue/ Date of revision**: 07/07/2016

**Date of previous issue**: No previous validation.

**Version**: 1

**Notice to reader**

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