SAFETY DATA SHEET
Agilent DNA 1000 Kit, Part Number 5067-1504

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

1.1 Product identifier

Product name : Agilent DNA 1000 Kit, Part Number 5067-1504
Part no. (chemical kit) : 5067-1504
Part no. : Reagents DNA 1000 DNA 1000 Gel Matrix Not available.
DNA Dye Concentrate Not available.
DNA 1000 Marker Not available.
DNA 1000 Ladder Not available.

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

Material uses : Analytical reagent.
Research and Development

DNA 1000 Gel Matrix 3 x 0.5 ml
DNA Dye Concentrate 1 x 0.09 ml
DNA 1000 Marker 2 x 1.2 ml
DNA 1000 Ladder 1 x 0.035 ml

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 : DNA 1000 Gel Matrix Mixture
DNA Dye Concentrate Mixture
DNA 1000 Marker Mixture
DNA 1000 Ladder Mixture

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

Ingredients of unknown toxicity : DNA 1000 Gel Matrix Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%

DNA 1000 Marker Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%

Date of issue/Date of revision : 30/10/2019 Date of previous issue : 05/09/2017 Version : 3
SECTION 2: Hazards identification

Ingredients of unknown ecotoxicity:
- DNA 1000 Gel Matrix
- DNA 1000 Marker

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4.4%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 4.6%

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:
- DNA 1000 Gel Matrix: No signal word.
- DNA Dye Concentrate: No signal word.
- DNA 1000 Marker: No signal word.
- DNA 1000 Ladder: No signal word.

Hazard statements:
- DNA 1000 Gel Matrix: No known significant effects or critical hazards.
- DNA Dye Concentrate: No known significant effects or critical hazards.
- DNA 1000 Marker: No known significant effects or critical hazards.
- DNA 1000 Ladder: No known significant effects or critical hazards.

Precautionary statements

Prevention:
- DNA 1000 Gel Matrix: Not applicable.
- DNA Dye Concentrate: Not applicable.
- DNA 1000 Marker: Not applicable.
- DNA 1000 Ladder: Not applicable.

Response:
- DNA 1000 Gel Matrix: Not applicable.
- DNA Dye Concentrate: Not applicable.
- DNA 1000 Marker: Not applicable.
- DNA 1000 Ladder: Not applicable.

Storage:
- DNA 1000 Gel Matrix: Not applicable.
- DNA Dye Concentrate: Not applicable.
- DNA 1000 Marker: Not applicable.
- DNA 1000 Ladder: Not applicable.

Disposal:
- DNA 1000 Gel Matrix: Not applicable.
- DNA Dye Concentrate: Not applicable.
- DNA 1000 Marker: Not applicable.
- DNA 1000 Ladder: Not applicable.

Supplemental label elements:
- DNA 1000 Gel Matrix: Not applicable.
- DNA Dye Concentrate: Not applicable.
- DNA 1000 Marker: Not applicable.
- DNA 1000 Ladder: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:
- DNA 1000 Gel Matrix: Not applicable.
- DNA Dye Concentrate: Not applicable.
- DNA 1000 Marker: Not applicable.
- DNA 1000 Ladder: Not applicable.

Special packaging requirements:

Tactile warning of danger:
- DNA 1000 Gel Matrix: Not applicable.
- DNA Dye Concentrate: Not applicable.
- DNA 1000 Marker: Not applicable.
- DNA 1000 Ladder: Not applicable.

2.3 Other hazards
SECTION 2: Hazards identification

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII:

DNA 1000 Gel Matrix
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

DNA Dye Concentrate
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

DNA 1000 Marker
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

DNA 1000 Ladder
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification:

DNA 1000 Gel Matrix: None known.
DNA Dye Concentrate: None known.
DNA 1000 Marker: None known.
DNA 1000 Ladder: None known.

SECTION 3: Composition/information on ingredients

3.1 Substances:

DNA 1000 Gel Matrix: Mixture
DNA Dye Concentrate: Mixture
DNA 1000 Marker: Mixture
DNA 1000 Ladder: Mixture

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, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact:

DNA 1000 Gel Matrix: 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.

DNA Dye Concentrate: 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.

DNA 1000 Marker: 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.

DNA 1000 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:

DNA 1000 Gel Matrix: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

DNA Dye Concentrate: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

DNA 1000 Marker: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

DNA 1000 Ladder: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Agilent DNA 1000 Kit, Part Number 5067-1504

SECTION 4: First aid measures

<table>
<thead>
<tr>
<th>Skin contact</th>
<th>DNA 1000 Gel Matrix</th>
<th>DNA Dye Concentrate</th>
<th>DNA 1000 Marker</th>
<th>DNA 1000 Ladder</th>
</tr>
</thead>
<tbody>
<tr>
<td></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>
<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>
<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>
<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>

Ingestion:

DNA 1000 Gel Matrix: 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.

DNA Dye Concentrate: 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.

DNA 1000 Marker: 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.

DNA 1000 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.

Protection of first-aiders:

DNA 1000 Gel Matrix: No action shall be taken involving any personal risk or without suitable training.

DNA Dye Concentrate: No action shall be taken involving any personal risk or without suitable training.

DNA 1000 Marker: No action shall be taken involving any personal risk or without suitable training.

DNA 1000 Ladder: No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact:

DNA 1000 Gel Matrix: No known significant effects or critical hazards.

DNA Dye Concentrate: No known significant effects or critical hazards.

DNA 1000 Marker: No known significant effects or critical hazards.

DNA 1000 Ladder: No known significant effects or critical hazards.

Inhalation:

DNA 1000 Gel Matrix: No known significant effects or critical hazards.

DNA Dye Concentrate: No known significant effects or critical hazards.

DNA 1000 Marker: No known significant effects or critical hazards.

DNA 1000 Ladder: No known significant effects or critical hazards.

Skin contact:

DNA 1000 Gel Matrix: No known significant effects or critical hazards.

DNA Dye Concentrate: No known significant effects or critical hazards.

DNA 1000 Marker: No known significant effects or critical hazards.

DNA 1000 Ladder: No known significant effects or critical hazards.

Date of issue/Date of revision: 30/10/2019

Date of previous issue: 05/09/2017

Version: 3
SECTION 4: First aid measures

Ingestion
- DNA 1000 Gel Matrix: No known significant effects or critical hazards.
- DNA Dye Concentrate: No known significant effects or critical hazards.
- DNA 1000 Marker: No known significant effects or critical hazards.
- DNA 1000 Ladder: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact
- DNA 1000 Gel Matrix: No specific data.
- DNA Dye Concentrate: No specific data.
- DNA 1000 Marker: No specific data.
- DNA 1000 Ladder: No specific data.

Inhalation
- DNA 1000 Gel Matrix: No specific data.
- DNA Dye Concentrate: No specific data.
- DNA 1000 Marker: No specific data.
- DNA 1000 Ladder: No specific data.

Skin contact
- DNA 1000 Gel Matrix: No specific data.
- DNA Dye Concentrate: No specific data.
- DNA 1000 Marker: No specific data.
- DNA 1000 Ladder: No specific data.

Ingestion
- DNA 1000 Gel Matrix: No specific data.
- DNA Dye Concentrate: No specific data.
- DNA 1000 Marker: No specific data.
- DNA 1000 Ladder: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician
- DNA 1000 Gel Matrix: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- DNA Dye Concentrate: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- DNA 1000 Marker: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- DNA 1000 Ladder: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments
- DNA 1000 Gel Matrix: No specific treatment.
- DNA 1000 Marker: No specific treatment.
- DNA 1000 Ladder: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
- DNA 1000 Gel Matrix: Use an extinguishing agent suitable for the surrounding fire.
- DNA Dye Concentrate: Use an extinguishing agent suitable for the surrounding fire.
- DNA 1000 Marker: Use an extinguishing agent suitable for the surrounding fire.
- DNA 1000 Ladder: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media
- DNA 1000 Gel Matrix: None known.
- DNA Dye Concentrate: None known.
- DNA 1000 Marker: None known.
- DNA 1000 Ladder: None known.

5.2 Special hazards arising from the substance or mixture

Hazard from the substance or mixture
- DNA 1000 Gel Matrix: In a fire or if heated, a pressure increase will occur and the container may burst.
- DNA Dye Concentrate: In a fire or if heated, a pressure increase will occur and the container may burst.
- DNA 1000 Marker: In a fire or if heated, a pressure increase will occur and the container may burst.
- DNA 1000 Ladder: In a fire or if heated, a pressure increase will occur and the container may burst.
## SECTION 5: Firefighting measures

### Hazardous combustion products

<table>
<thead>
<tr>
<th>Product</th>
<th>Decomposition products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA 1000 Gel Matrix</td>
<td></td>
<td>carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides</td>
</tr>
<tr>
<td>DNA Dye Concentrate</td>
<td></td>
<td>carbon dioxide, carbon monoxide, sulfur oxides</td>
</tr>
<tr>
<td>DNA 1000 Marker</td>
<td></td>
<td>carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides</td>
</tr>
<tr>
<td>DNA 1000 Ladder</td>
<td></td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

### 5.3 Advice for firefighters

#### Special precautions for firefighters

<table>
<thead>
<tr>
<th>Product</th>
<th>Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA 1000 Gel Matrix</td>
<td>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.</td>
</tr>
<tr>
<td>DNA Dye Concentrate</td>
<td>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.</td>
</tr>
<tr>
<td>DNA 1000 Marker</td>
<td>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.</td>
</tr>
<tr>
<td>DNA 1000 Ladder</td>
<td>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.</td>
</tr>
</tbody>
</table>

#### Special protective equipment for firefighters

<table>
<thead>
<tr>
<th>Product</th>
<th>Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA 1000 Gel Matrix</td>
<td>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.</td>
</tr>
<tr>
<td>DNA Dye Concentrate</td>
<td>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.</td>
</tr>
<tr>
<td>DNA 1000 Marker</td>
<td>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.</td>
</tr>
<tr>
<td>DNA 1000 Ladder</td>
<td>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.</td>
</tr>
</tbody>
</table>
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:
- DNA 1000 Gel Matrix: 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.
- DNA Dye Concentrate: 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.
- DNA 1000 Marker: 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.
- DNA 1000 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:
- DNA 1000 Gel Matrix: 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".
- DNA Dye Concentrate: 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".
- DNA 1000 Marker: 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".
- DNA 1000 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

- DNA 1000 Gel Matrix: 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).
- DNA Dye Concentrate: 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).
- DNA 1000 Marker: 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).
- DNA 1000 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
SECTION 6: Accidental release measures

Methods for cleaning up:

DNA 1000 Gel Matrix: 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.

DNA Dye Concentrate: 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.

DNA 1000 Marker: 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.

DNA 1000 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.

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:

DNA 1000 Gel Matrix: Put on appropriate personal protective equipment (see Section 8).
DNA Dye Concentrate: Put on appropriate personal protective equipment (see Section 8).
DNA 1000 Marker: Put on appropriate personal protective equipment (see Section 8).
DNA 1000 Ladder: Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene:

DNA 1000 Gel Matrix: 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.
DNA Dye Concentrate: 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.
DNA 1000 Marker: 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.
DNA 1000 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

Date of issue/Date of revision: 30/10/2019
Date of previous issue: 05/09/2017
Version: 3
SECTION 7: Handling and storage

Storage:

- **DNA 1000 Gel Matrix**: 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.

- **DNA Dye Concentrate**: Storage temperature: 4°C (39.2°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.

- **DNA 1000 Marker**: Storage temperature: 4°C (39.2°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.

- **DNA 1000 Ladder**: 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.

7.3 Specific end use(s)

**Recommendations**:
- **DNA 1000 Gel Matrix**: Industrial applications, Professional applications.
- **DNA Dye Concentrate**: Industrial applications, Professional applications.
- **DNA 1000 Marker**: Industrial applications, Professional applications.
- **DNA 1000 Ladder**: Industrial applications, Professional applications.

**Industrial sector specific solutions**:
- **DNA 1000 Gel Matrix**: Not applicable.
- **DNA Dye Concentrate**: Not applicable.
- **DNA 1000 Marker**: Not applicable.
- **DNA 1000 Ladder**: Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

**Occupational exposure limits**

No exposure limit value known.
Agilent DNA 1000 Kit, Part Number 5067-1504

SECTION 8: Exposure controls/personal protection

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.

Hand protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Training on proper use and selection of respirators is required. This respirator should be selected according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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.

Safety eyewear complying with an approved standard should be worn when a risk assessment indicates this is necessary to protect the eyes. For tasks that require additional protection, safety glasses with side-shields should be worn, unless the assessment indicates a higher degree of protection.

Eye/face protection

Respiratory protection

Appropriate engineering controls

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

Environmental exposure controls

Appropriate engineering controls

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

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.

Hygiene measures

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>Property</th>
<th>DNA 1000 Gel Matrix</th>
<th>DNA Dye Concentrate</th>
<th>DNA 1000 Marker</th>
<th>DNA 1000 Ladder</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>Not available.</td>
<td>18.5°C</td>
<td>0°C</td>
<td>0°C</td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>Not available.</td>
<td>189°C</td>
<td>100°C</td>
<td>100°C</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not available.</td>
<td>Closed cup: 87°C</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>Not available.</td>
<td>Lower: 2.6%</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not available.</td>
<td>2.7 [Air = 1]</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>DNA 1000 Gel Matrix</th>
<th>DNA Dye Concentrate</th>
<th>DNA 1000 Marker</th>
<th>DNA 1000 Ladder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility(ies)</td>
<td>DNA 1000 Gel Matrix</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>DNA 1000 Marker</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td></td>
<td>DNA Dye Concentrate</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>DNA 1000 Ladder</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td></td>
<td>DNA 1000 Marker</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>DNA 1000 Ladder</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

9.2 Other information
No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

| DNA 1000 Gel Matrix | No specific test data related to reactivity available for this product or its ingredients. |
| DNA Dye Concentrate | No specific test data related to reactivity available for this product or its ingredients. |
| DNA 1000 Marker     | No specific test data related to reactivity available for this product or its ingredients. |
| DNA 1000 Ladder     | No specific test data related to reactivity available for this product or its ingredients. |

10.2 Chemical stability

| DNA 1000 Gel Matrix | The product is stable. |
| DNA Dye Concentrate | The product is stable. |
| DNA 1000 Marker     | The product is stable. |
| DNA 1000 Ladder     | The product is stable. |
### SECTION 10: Stability and reactivity

| 10.3 Possibility of hazardous reactions | DNA 1000 Gel Matrix | Under normal conditions of storage and use, hazardous reactions will not occur. |
| DNA Dye Concentrate | Under normal conditions of storage and use, hazardous reactions will not occur. |
| DNA 1000 Marker | Under normal conditions of storage and use, hazardous reactions will not occur. |
| DNA 1000 Ladder | Under normal conditions of storage and use, hazardous reactions will not occur. |

| 10.4 Conditions to avoid | DNA 1000 Gel Matrix | No specific data. |
| DNA Dye Concentrate | No specific data. |
| DNA 1000 Marker | No specific data. |
| DNA 1000 Ladder | No specific data. |

| 10.5 Incompatible materials | DNA 1000 Gel Matrix | May react or be incompatible with oxidising materials. |
| DNA Dye Concentrate | May react or be incompatible with oxidising materials. |
| DNA 1000 Marker | May react or be incompatible with oxidising materials. |
| DNA 1000 Ladder | May react or be incompatible with oxidising materials. |

| 10.6 Hazardous decomposition products | DNA 1000 Gel Matrix | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| DNA Dye Concentrate | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| DNA 1000 Marker | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| DNA 1000 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**
N/A

**Irritation/Corrosion**

**Conclusion/Summary** : Not available.

**Sensitiser**

**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.
SECTION 11: Toxicological information

Information on likely routes of exposure:

DNA 1000 Gel Matrix: Not available.
DNA Dye Concentrate: Routes of entry anticipated: Oral, Dermal, Inhalation.
DNA 1000 Marker: Not available.
DNA 1000 Ladder: Not available.

Potential acute health effects:

Inhalation:
DNA 1000 Gel Matrix: No known significant effects or critical hazards.
DNA Dye Concentrate: No known significant effects or critical hazards.
DNA 1000 Marker: No known significant effects or critical hazards.
DNA 1000 Ladder: No known significant effects or critical hazards.

Ingestion:
DNA 1000 Gel Matrix: No known significant effects or critical hazards.
DNA Dye Concentrate: No known significant effects or critical hazards.
DNA 1000 Marker: No known significant effects or critical hazards.
DNA 1000 Ladder: No known significant effects or critical hazards.

Skin contact:
DNA 1000 Gel Matrix: No known significant effects or critical hazards.
DNA Dye Concentrate: No known significant effects or critical hazards.
DNA 1000 Marker: No known significant effects or critical hazards.
DNA 1000 Ladder: No known significant effects or critical hazards.

Eye contact:
DNA 1000 Gel Matrix: No known significant effects or critical hazards.
DNA Dye Concentrate: No known significant effects or critical hazards.
DNA 1000 Marker: No known significant effects or critical hazards.
DNA 1000 Ladder: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation:
DNA 1000 Gel Matrix: No specific data.
DNA Dye Concentrate: No specific data.
DNA 1000 Marker: No specific data.
DNA 1000 Ladder: No specific data.

Ingestion:
DNA 1000 Gel Matrix: No specific data.
DNA Dye Concentrate: No specific data.
DNA 1000 Marker: No specific data.
DNA 1000 Ladder: No specific data.

Skin contact:
DNA 1000 Gel Matrix: No specific data.
DNA Dye Concentrate: No specific data.
DNA 1000 Marker: No specific data.
DNA 1000 Ladder: No specific data.

Eye contact:
DNA 1000 Gel Matrix: No specific data.
DNA Dye Concentrate: No specific data.
DNA 1000 Marker: No specific data.
DNA 1000 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:
DNA 1000 Gel Matrix: No known significant effects or critical hazards.
DNA Dye Concentrate: No known significant effects or critical hazards.
DNA 1000 Marker: No known significant effects or critical hazards.
DNA 1000 Ladder: No known significant effects or critical hazards.
SECTION 11: Toxicological information

**Carcinogenicity**
- DNA 1000 Gel Matrix: No known significant effects or critical hazards.
- DNA Dye Concentrate: No known significant effects or critical hazards.
- DNA 1000 Marker: No known significant effects or critical hazards.
- DNA 1000 Ladder: No known significant effects or critical hazards.

**Mutagenicity**
- DNA 1000 Gel Matrix: No known significant effects or critical hazards.
- DNA Dye Concentrate: No known significant effects or critical hazards.
- DNA 1000 Marker: No known significant effects or critical hazards.
- DNA 1000 Ladder: No known significant effects or critical hazards.

**Teratogenicity**
- DNA 1000 Gel Matrix: No known significant effects or critical hazards.
- DNA Dye Concentrate: No known significant effects or critical hazards.
- DNA 1000 Marker: No known significant effects or critical hazards.
- DNA 1000 Ladder: No known significant effects or critical hazards.

**Developmental effects**
- DNA 1000 Gel Matrix: No known significant effects or critical hazards.
- DNA Dye Concentrate: No known significant effects or critical hazards.
- DNA 1000 Marker: No known significant effects or critical hazards.
- DNA 1000 Ladder: No known significant effects or critical hazards.

**Fertility effects**
- DNA 1000 Gel Matrix: No known significant effects or critical hazards.
- DNA Dye Concentrate: No known significant effects or critical hazards.
- DNA 1000 Marker: No known significant effects or critical hazards.
- DNA 1000 Ladder: No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

**Conclusion/Summary**: Not available.

12.2 Persistence and degradability

**Not available.**

12.3 Bioaccumulative potential

**Not available.**

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

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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**
SECTION 13: Disposal considerations

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

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

Additional 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

DNA 1000 Gel Matrix: Not applicable.
DNA Dye Concentrate: Not applicable.
DNA 1000 Marker: Not applicable.
DNA 1000 Ladder: Not applicable.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air: Listed

Ozone depleting substances (1005/2009/EU)
SECTION 15: Regulatory information

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
Australia: Not determined.
Canada: Not determined.
China: Not determined.
Europe: Not determined.
Japan:
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
New Zealand: Not determined.
Philippines: Not determined.
Republic of Korea: Not determined.
Taiwan: Not determined.
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]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

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

Date of issue/Date of revision: 30/10/2019
Date of previous issue: 05/09/2017
Version: 3
Not classified.

Full text of abbreviated H statements
Not applicable.

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

Date of issue/ Date of revision : 30/10/2019
Date of previous issue : 05/09/2017
Version : 3

Notice to reader
Disclaimer: The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.