

SAFETY DATA SHEET



Agilent DNA 1000 Reagents, Part Number 5067-1505

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

1.1 Product identifier

Product name : Agilent DNA 1000 Reagents, Part Number 5067-1505
Part no. (chemical kit) : 5067-1505
Part no. : Reagents DNA 1000 G2938-80020
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 chemistry.
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%

SECTION 2: Hazards identification

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

Ingredients of unknown ecotoxicity	: DNA 1000 Gel Matrix	Contains 4.4% of components with unknown hazards to the aquatic environment
	: DNA 1000 Marker	Contains 4.6% of components with unknown hazards to the aquatic environment

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

Agilent DNA 1000 Reagents, Part Number 5067-1505

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.

SECTION 4: First aid measures

Skin contact	: DNA 1000 Gel Matrix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	DNA Dye Concentrate	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	DNA 1000 Marker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	DNA 1000 Ladder	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
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.

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 Dye Concentrate	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

Hazards 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	: DNA 1000 Gel Matrix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
	DNA Dye Concentrate	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
	DNA 1000 Marker	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides
	DNA 1000 Ladder	No specific data.
5.3 Advice for firefighters		
Special precautions for fire-fighters	: DNA 1000 Gel Matrix	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.
	DNA Dye Concentrate	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.
	DNA 1000 Marker	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.
	DNA 1000 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	: DNA 1000 Gel Matrix	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.
	DNA Dye Concentrate	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.
	DNA 1000 Marker	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.
	DNA 1000 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	: 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

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	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 DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Not applicable. Not applicable. Not applicable. Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

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.

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.

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	: DNA 1000 Gel Matrix	Liquid.
	DNA Dye Concentrate	Liquid.
	DNA 1000 Marker	Liquid.
	DNA 1000 Ladder	Liquid.
Colour	: DNA 1000 Gel Matrix	Not available.
	DNA Dye Concentrate	Blue.
	DNA 1000 Marker	Not available.
	DNA 1000 Ladder	Not available.
Odour	: DNA 1000 Gel Matrix	Not available.
	DNA Dye Concentrate	Not available.
	DNA 1000 Marker	Not available.
	DNA 1000 Ladder	Not available.
Odour threshold	: DNA 1000 Gel Matrix	Not available.
	DNA Dye Concentrate	Not available.
	DNA 1000 Marker	Not available.
	DNA 1000 Ladder	Not available.
pH	: DNA 1000 Gel Matrix	8
	DNA Dye Concentrate	Not available.
	DNA 1000 Marker	8
	DNA 1000 Ladder	Not available.
Melting point/freezing point	: DNA 1000 Gel Matrix	Not available.
	DNA Dye Concentrate	18.5°C
	DNA 1000 Marker	0°C
	DNA 1000 Ladder	0°C
Initial boiling point and boiling range	: DNA 1000 Gel Matrix	Not available.
	DNA Dye Concentrate	189°C
	DNA 1000 Marker	100°C
	DNA 1000 Ladder	100°C
Flash point	: DNA 1000 Gel Matrix	Not available.
	DNA Dye Concentrate	Closed cup: 87°C
	DNA 1000 Marker	Not available.
	DNA 1000 Ladder	Not available.
Evaporation rate	: DNA 1000 Gel Matrix	Not available.
	DNA Dye Concentrate	Not available.
	DNA 1000 Marker	Not available.
	DNA 1000 Ladder	Not available.
Flammability (solid, gas)	: DNA 1000 Gel Matrix	Not applicable.
	DNA Dye Concentrate	Not applicable.
	DNA 1000 Marker	Not applicable.
	DNA 1000 Ladder	Not applicable.
Upper/lower flammability or explosive limits	: DNA 1000 Gel Matrix	Not available.
	DNA Dye Concentrate	Lower: 2.6% Upper: 42%
	DNA 1000 Marker	Not available.
	DNA 1000 Ladder	Not available.
Vapour pressure	: DNA 1000 Gel Matrix	Not available.
	DNA Dye Concentrate	Not available.
	DNA 1000 Marker	Not available.
	DNA 1000 Ladder	Not available.
Vapour density	: DNA 1000 Gel Matrix	Not available.
	DNA Dye Concentrate	2.7 [Air = 1]
	DNA 1000 Marker	Not available.
	DNA 1000 Ladder	Not available.

SECTION 9: Physical and chemical properties

Relative density	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Not available. Not available. Not available. Not available.
Solubility(ies)	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Not available. Not available. Not available. Not available.
Auto-ignition temperature	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Not available. Not available. Not available. Not available.
Decomposition temperature	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Not available. Not available. Not available. Not available.
Viscosity	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Not available. Not available. Not available. Not available.
Explosive properties	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Not available. Not available. Not available. Not available.
Oxidising properties	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Not available. Not available. Not available. Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	The product is stable. The product is stable. The product is stable. The product is stable.

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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 DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	Not available. Routes of entry anticipated: Oral, Dermal, Inhalation. Not available. Not available.
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Potential acute health effects

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

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	No specific data. No specific data. No specific data. No specific data.
Ingestion	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	No specific data. No specific data. No specific data. No specific data.
Skin contact	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	No specific data. No specific data. No specific data. No specific data.
Eye contact	: DNA 1000 Gel Matrix DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	No specific data. No specific data. No specific data. 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 DNA Dye Concentrate DNA 1000 Marker DNA 1000 Ladder	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
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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_{oc}) : 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

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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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

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 IMO instruments : 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

Label	: 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)

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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](#)

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

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SECTION 16: Other information

Classification	Justification
Not classified.	

Full text of abbreviated H statements

Not applicable.

Full text of classifications [CLP/GHS]

Not applicable.

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Version : 3

Notice to reader

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