

SAFETY DATA SHEET

Agilent DNA 7500 Kit, Part Number 5067-1506

Section 1. Identification

1.1 Product identifier

Product name : Agilent DNA 7500 Kit, Part Number 5067-1506

Part no. (chemical kit) : 5067-1506

Part no. : Reagents DNA 7500 G2938-80021
 DNA 7500 Ladder Not available.
 DNA 7500 Marker Not available.
 DNA Dye Concentrate Not available.
 DNA 7500 Gel Matrix Not available.

Validation date : 7/31/2018

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

Material uses : Analytical reagent.
 Research and Development

DNA 7500 Ladder	1 x 0.035 ml
DNA 7500 Marker	2 x 1.2 ml
DNA Dye Concentrate	1 x 0.09 ml
DNA 7500 Gel Matrix	3 x 0.5 ml

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051, USA
 800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : DNA 7500 Ladder	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
DNA 7500 Marker	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
DNA Dye Concentrate	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
DNA 7500 Gel Matrix	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Section 2. Hazards identification

Classification of the substance or mixture

DNA Dye Concentrate

H227	FLAMMABLE LIQUIDS - Category 4	
H320	EYE IRRITATION - Category 2B	
H402	AQUATIC HAZARD (ACUTE) - Category 3	
H412	AQUATIC HAZARD (LONG-TERM) - Category 3	
Ingredients of unknown toxicity	:	DNA 7500 Marker
		Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 1 - 10%
		Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 1 - 10%
		Percentage of the mixture consisting of ingredient (s) of unknown oral toxicity: 1 - 10%
		DNA 7500 Gel Matrix
		Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 1 - 10%
		Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 1 - 10%
		Percentage of the mixture consisting of ingredient (s) of unknown oral toxicity: 1 - 10%
		DNA 7500 Marker
		Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 4.6%
		DNA 7500 Gel Matrix
		Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 4.6%

2.2 GHS label elements

Signal word

:	DNA 7500 Ladder	No signal word.
	DNA 7500 Marker	No signal word.
	DNA Dye Concentrate	Warning
	DNA 7500 Gel Matrix	No signal word.

Hazard statements

:	DNA 7500 Ladder	No known significant effects or critical hazards.
	DNA 7500 Marker	No known significant effects or critical hazards.
	DNA Dye Concentrate	H227 - Combustible liquid.
		H320 - Causes eye irritation.
		H412 - Harmful to aquatic life with long lasting effects.
	DNA 7500 Gel Matrix	No known significant effects or critical hazards.

Precautionary statements

Prevention

:	DNA 7500 Ladder	Not applicable.
	DNA 7500 Marker	Not applicable.
	DNA Dye Concentrate	P280 - Wear protective gloves. Wear eye or face protection.
		P210 - Keep away from flames and hot surfaces. - No smoking.
		P273 - Avoid release to the environment.
		P264 - Wash hands thoroughly after handling.
	DNA 7500 Gel Matrix	Not applicable.

Response

:	DNA 7500 Ladder	Not applicable.
	DNA 7500 Marker	Not applicable.
	DNA Dye Concentrate	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P337 + P313 - If eye irritation persists: Get medical attention.
	DNA 7500 Gel Matrix	Not applicable.

Section 2. Hazards identification

Storage	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not applicable. Not applicable. P403 - Store in a well-ventilated place. P235 - Keep cool. Not applicable.
Disposal	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not applicable. Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. Not applicable.
Supplemental label elements	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	None known. None known. None known. None known.
2.3 Other hazards		
Hazards not otherwise classified	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	None known. None known. None known. None known.

Section 3. Composition/information on ingredients

Substance/mixture	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Mixture Mixture Mixture Mixture
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Ingredient name	%	CAS number
DNA Dye Concentrate Dimethyl sulfoxide	≥90	67-68-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 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. 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. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get
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Section 4. First aid measures

Inhalation

: DNA 7500 Ladder

medical attention if irritation occurs.

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

DNA 7500 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 Dye Concentrate

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

DNA 7500 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.

Skin contact

: DNA 7500 Ladder

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

DNA 7500 Marker

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. Wash clothing before reuse. Clean shoes thoroughly before reuse.

DNA 7500 Gel Matrix

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

Ingestion

: DNA 7500 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.

DNA 7500 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.

Section 4. First aid measures

DNA Dye Concentrate

Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

DNA 7500 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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	No known significant effects or critical hazards. No known significant effects or critical hazards. Causes eye irritation. No known significant effects or critical hazards.
Inhalation	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	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 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	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 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	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.

Over-exposure signs/symptoms

Eye contact	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate	No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness
	DNA 7500 Gel Matrix	No specific data.
Inhalation	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	No specific data. No specific data. No specific data. No specific data.

Section 4. First aid measures

Skin contact	: DNA 7500 Ladder	No specific data.
	DNA 7500 Marker	No specific data.
	DNA Dye Concentrate	No specific data.
	DNA 7500 Gel Matrix	No specific data.
Ingestion	: DNA 7500 Ladder	No specific data.
	DNA 7500 Marker	No specific data.
	DNA Dye Concentrate	No specific data.
	DNA 7500 Gel Matrix	No specific data.

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

Notes to physician	: DNA 7500 Ladder	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	DNA 7500 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 Dye Concentrate	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	DNA 7500 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.
Specific treatments	: DNA 7500 Ladder	No specific treatment.
	DNA 7500 Marker	No specific treatment.
	DNA Dye Concentrate	No specific treatment.
	DNA 7500 Gel Matrix	No specific treatment.
Protection of first-aiders	: DNA 7500 Ladder	No action shall be taken involving any personal risk or without suitable training.
	DNA 7500 Marker	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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	DNA 7500 Gel Matrix	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: DNA 7500 Ladder	Use an extinguishing agent suitable for the surrounding fire.
	DNA 7500 Marker	Use an extinguishing agent suitable for the surrounding fire.
	DNA Dye Concentrate	Use dry chemical, CO ₂ , water spray (fog) or foam.
	DNA 7500 Gel Matrix	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: DNA 7500 Ladder	None known.
	DNA 7500 Marker	None known.
	DNA Dye Concentrate	Do not use water jet.
	DNA 7500 Gel Matrix	None known.

Section 5. Fire-fighting measures

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	:	DNA 7500 Ladder	In a fire or if heated, a pressure increase will occur and the container may burst.
		DNA 7500 Marker	In a fire or if heated, a pressure increase will occur and the container may burst.
		DNA Dye Concentrate	Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
		DNA 7500 Gel Matrix	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	:	DNA 7500 Ladder	No specific data.
		DNA 7500 Marker	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 7500 Gel Matrix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	DNA 7500 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.
		DNA 7500 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 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
		DNA 7500 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.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters	: DNA 7500 Ladder	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	DNA 7500 Marker	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	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.
	DNA 7500 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.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: DNA 7500 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 spilled material. Put on appropriate personal protective equipment.
	DNA 7500 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 spilled 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	DNA 7500 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 spilled material. Put on appropriate personal protective equipment.
For emergency responders	: DNA 7500 Ladder	If specialized 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 7500 Marker	If specialized 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 specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also

Section 6. Accidental release measures

DNA 7500 Gel Matrix

the information in "For non-emergency personnel". If specialized 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 7500 Ladder

Avoid dispersal of spilled 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 7500 Marker

Avoid dispersal of spilled 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 spilled 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). Water polluting material. May be harmful to the environment if released in large quantities.

DNA 7500 Gel Matrix

Avoid dispersal of spilled 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 materials for containment and cleaning up

Methods for cleaning up : DNA 7500 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.

DNA 7500 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 Dye Concentrate

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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 7500 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.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	: DNA 7500 Ladder	Put on appropriate personal protective equipment (see Section 8).
	DNA 7500 Marker	Put on appropriate personal protective equipment (see Section 8).
	DNA Dye Concentrate	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.
	DNA 7500 Gel Matrix	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: DNA 7500 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.
	DNA 7500 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 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 7500 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.

7.2 Conditions for safe storage, including any incompatibilities

Section 7. Handling and storage

DNA 7500 Ladder

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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

DNA 7500 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 unlabeled 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 a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

DNA 7500 Gel Matrix

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 unlabeled 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 7500 Ladder
DNA 7500 Marker
DNA Dye Concentrate
DNA 7500 Gel Matrix

Industrial applications, Professional applications.
Industrial applications, Professional applications.
Industrial applications, Professional applications.
Industrial applications, Professional applications.

Section 7. Handling and storage

Industrial sector specific solutions	: DNA 7500 Ladder	Not applicable.
	DNA 7500 Marker	Not applicable.
	DNA Dye Concentrate	Not applicable.
	DNA 7500 Gel Matrix	Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
DNA Dye Concentrate Dimethyl sulfoxide	AIHA WEEL (United States, 10/2011). TWA: 250 ppm 8 hours.

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Liquid. Liquid. Liquid. Liquid.
Color	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not available. Not available. Blue. Not available.
Odor	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not available. Not available. Not available. Not available.
Odor threshold	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not available. Not available. Not available. Not available.
pH	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not available. Not available. Not available. Not available.
Melting point	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	0°C (32°F) 0°C (32°F) 18.5°C (65.3°F) Not available.
Boiling point	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	100°C (212°F) 100°C (212°F) 189°C (372.2°F) Not available.
Flash point	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not available. Not available. Closed cup: 87°C (188.6°F) Not available.
Evaporation rate	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not available. Not available. Not available. Not available.
Flammability (solid, gas)	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not applicable. Not applicable. Not applicable. Not applicable.
Lower and upper explosive (flammable) limits	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not available. Not available. Lower: 2.6% Upper: 42% Not available.
Vapor pressure	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate DNA 7500 Gel Matrix	Not available. Not available. Not available. Not available.
Vapor density	:	

Section 9. Physical and chemical properties

	DNA 7500 Ladder	Not available.
	DNA 7500 Marker	Not available.
	DNA Dye Concentrate	2.7 [Air = 1]
	DNA 7500 Gel Matrix	Not available.
Relative density	: DNA 7500 Ladder	Not available.
	DNA 7500 Marker	Not available.
	DNA Dye Concentrate	Not available.
	DNA 7500 Gel Matrix	Not available.
Solubility	: DNA 7500 Ladder	Easily soluble in the following materials: cold water and hot water.
	DNA 7500 Marker	Easily soluble in the following materials: cold water and hot water.
	DNA Dye Concentrate	Easily soluble in the following materials: cold water and hot water.
	DNA 7500 Gel Matrix	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: DNA 7500 Ladder	Not available.
	DNA 7500 Marker	Not available.
	DNA Dye Concentrate	Not available.
	DNA 7500 Gel Matrix	Not available.
Auto-ignition temperature	: DNA 7500 Ladder	Not available.
	DNA 7500 Marker	Not available.
	DNA Dye Concentrate	Not available.
	DNA 7500 Gel Matrix	Not available.
Decomposition temperature	: DNA 7500 Ladder	Not available.
	DNA 7500 Marker	Not available.
	DNA Dye Concentrate	Not available.
	DNA 7500 Gel Matrix	Not available.
Viscosity	: DNA 7500 Ladder	Not available.
	DNA 7500 Marker	Not available.
	DNA Dye Concentrate	Not available.
	DNA 7500 Gel Matrix	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: DNA 7500 Ladder	No specific test data related to reactivity available for this product or its ingredients.
	DNA 7500 Marker	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 7500 Gel Matrix	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: DNA 7500 Ladder	The product is stable.
	DNA 7500 Marker	The product is stable.
	DNA Dye Concentrate	The product is stable.
	DNA 7500 Gel Matrix	The product is stable.
10.3 Possibility of hazardous reactions	: DNA 7500 Ladder	Under normal conditions of storage and use, hazardous reactions will not occur.
	DNA 7500 Marker	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 7500 Gel Matrix	Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

hazardous reactions will not occur.

10.4 Conditions to avoid	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate	No specific data. No specific data. Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
	DNA 7500 Gel Matrix	No specific data.
10.5 Incompatible materials	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate	May react or be incompatible with oxidizing materials. May react or be incompatible with oxidizing materials. Reactive or incompatible with the following materials: oxidizing materials
	DNA 7500 Gel Matrix	May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	: DNA 7500 Ladder DNA 7500 Marker DNA Dye Concentrate	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	DNA 7500 Gel Matrix	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

Product/ingredient name	Result	Species	Dose	Exposure
DNA Dye Concentrate Dimethyl sulfoxide	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
DNA Dye Concentrate Dimethyl sulfoxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	100 milligrams	-

Sensitization

Section 11. Toxicological information

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.

Information on the likely routes of exposure	: DNA 7500 Ladder	Not available.
	: DNA 7500 Marker	Not available.
	: DNA Dye Concentrate	Routes of entry anticipated: Oral, Dermal, Inhalation.
	: DNA 7500 Gel Matrix	Not available.

Potential acute health effects

Eye contact	: DNA 7500 Ladder	No known significant effects or critical hazards.
	: DNA 7500 Marker	No known significant effects or critical hazards.
	: DNA Dye Concentrate	Causes eye irritation.
	: DNA 7500 Gel Matrix	No known significant effects or critical hazards.
Inhalation	: DNA 7500 Ladder	No known significant effects or critical hazards.
	: DNA 7500 Marker	No known significant effects or critical hazards.
	: DNA Dye Concentrate	No known significant effects or critical hazards.
	: DNA 7500 Gel Matrix	No known significant effects or critical hazards.
Skin contact	: DNA 7500 Ladder	No known significant effects or critical hazards.
	: DNA 7500 Marker	No known significant effects or critical hazards.
	: DNA Dye Concentrate	No known significant effects or critical hazards.
	: DNA 7500 Gel Matrix	No known significant effects or critical hazards.
Ingestion	: DNA 7500 Ladder	No known significant effects or critical hazards.
	: DNA 7500 Marker	No known significant effects or critical hazards.
	: DNA Dye Concentrate	No known significant effects or critical hazards.
	: DNA 7500 Gel Matrix	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: DNA 7500 Ladder	No specific data.
	: DNA 7500 Marker	No specific data.
	: DNA Dye Concentrate	Adverse symptoms may include the following: irritation watering redness
	: DNA 7500 Gel Matrix	No specific data.

Section 11. Toxicological information

Inhalation	:	DNA 7500 Ladder	No specific data.
		DNA 7500 Marker	No specific data.
		DNA Dye Concentrate	No specific data.
		DNA 7500 Gel Matrix	No specific data.
Skin contact	:	DNA 7500 Ladder	No specific data.
		DNA 7500 Marker	No specific data.
		DNA Dye Concentrate	No specific data.
		DNA 7500 Gel Matrix	No specific data.
Ingestion	:	DNA 7500 Ladder	No specific data.
		DNA 7500 Marker	No specific data.
		DNA Dye Concentrate	No specific data.
		DNA 7500 Gel Matrix	No specific data.

Delayed and immediate effects and also 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 7500 Ladder	No known significant effects or critical hazards.
		DNA 7500 Marker	No known significant effects or critical hazards.
		DNA Dye Concentrate	No known significant effects or critical hazards.
		DNA 7500 Gel Matrix	No known significant effects or critical hazards.
Carcinogenicity	:	DNA 7500 Ladder	No known significant effects or critical hazards.
		DNA 7500 Marker	No known significant effects or critical hazards.
		DNA Dye Concentrate	No known significant effects or critical hazards.
		DNA 7500 Gel Matrix	No known significant effects or critical hazards.
Mutagenicity	:	DNA 7500 Ladder	No known significant effects or critical hazards.
		DNA 7500 Marker	No known significant effects or critical hazards.
		DNA Dye Concentrate	No known significant effects or critical hazards.
		DNA 7500 Gel Matrix	No known significant effects or critical hazards.
Teratogenicity	:	DNA 7500 Ladder	No known significant effects or critical hazards.
		DNA 7500 Marker	No known significant effects or critical hazards.
		DNA Dye Concentrate	No known significant effects or critical hazards.
		DNA 7500 Gel Matrix	No known significant effects or critical hazards.
Developmental effects	:	DNA 7500 Ladder	No known significant effects or critical hazards.
		DNA 7500 Marker	No known significant effects or critical hazards.
		DNA Dye Concentrate	No known significant effects or critical hazards.
		DNA 7500 Gel Matrix	No known significant effects or critical hazards.
Fertility effects	:	DNA 7500 Ladder	No known significant effects or critical hazards.
		DNA 7500 Marker	No known significant effects or critical hazards.
		DNA Dye Concentrate	No known significant effects or critical hazards.
		DNA 7500 Gel Matrix	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 11. Toxicological information

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
DNA Dye Concentrate Dimethyl sulfoxide	Acute EC50 18299 µg/l Marine water	Algae - Nitzschia pungens	96 hours
	Acute LC50 37.437 mg/l Marine water	Crustaceans - Artemia sp.	48 hours
	Acute LC50 25000 ppm Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 34000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 3323 µg/l Marine water	Algae - Nitzschia pungens	96 hours

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
DNA Dye Concentrate Dimethyl sulfoxide	-1.35	3.16	low

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

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

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

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

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification	:	<input checked="" type="checkbox"/> DNA 7500 Ladder <input type="checkbox"/> DNA 7500 Marker <input type="checkbox"/> DNA Dye Concentrate <input type="checkbox"/> DNA 7500 Gel Matrix	Not applicable. Not applicable. FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2B Not applicable.
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Composition/information on ingredients

Name	%	Classification
<input checked="" type="checkbox"/> DNA Dye Concentrate Dimethyl sulfoxide	≥90	FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2A

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : The following components are listed: DIMETHYL SULFOXIDE; METHANE, SULFINYLBIS-

Pennsylvania : None of the components are listed.

Section 15. Regulatory information

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.
Malaysia	: 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.

Section 16. Other information

History

Date of issue	: 07/31/2018
Date of previous issue	: 10/27/2017
Version	: 7

Procedure used to derive the classification

Classification	Justification
DNA Dye Concentrate FLAMMABLE LIQUIDS - Category 4 EYE IRRITATION - Category 2B AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 3	On basis of test data Calculation method Calculation method Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

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.