

SAFETY DATA SHEET

Agilent RNA 6000 Nano Reagents, Part Number 5067-1512

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

1.1 Product identifier

Product name	: Agilent RNA 6000 Nano Reagents, Part Number 5067-1512	
Part no. (chemical kit)	: 5067-1512	
Part no.	: <u>Reagents RNA Nano</u>	<u>G2938-80023</u>
	RNA 6000 Nano Gel Matrix	Not available.
	RNA Nano Dye Concentrate	Not available.
	RNA 6000 Nano Marker	Not available.
	RNA 6000 Nano ladder	<u>G2938-80038</u>
	RNA 6000 Nano Ladder	Not available.

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

Identified uses	: Analytical chemistry. Research and Development	
	RNA 6000 Nano Gel Matrix	2 x 1.2 ml
	RNA Nano Dye Concentrate	1 x 0.035 ml
	RNA 6000 Nano Marker	2 x 1.2 ml
	RNA 6000 Nano Ladder	1 x 0.035 ml
Uses advised against	: None known.	

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
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	: RNA 6000 Nano Gel Matrix	Mixture
	RNA Nano Dye Concentrate	Mixture
	RNA 6000 Nano Marker	Mixture
	RNA 6000 Nano Ladder	Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

SECTION 2: Hazards identification

RNA 6000 Nano Gel Matrix	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
RNA Nano Dye Concentrate	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
RNA 6000 Nano Marker	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
RNA 6000 Nano Ladder	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

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	:	RNA 6000 Nano Gel Matrix	No signal word.
		RNA Nano Dye Concentrate	No signal word.
		RNA 6000 Nano Marker	No signal word.
		RNA 6000 Nano Ladder	No signal word.
Hazard statements	:	RNA 6000 Nano Gel Matrix	No known significant effects or critical hazards.
		RNA Nano Dye Concentrate	No known significant effects or critical hazards.
		RNA 6000 Nano Marker	No known significant effects or critical hazards.
		RNA 6000 Nano Ladder	No known significant effects or critical hazards.
Precautionary statements			
Prevention	:	RNA 6000 Nano Gel Matrix	Not applicable.
		RNA Nano Dye Concentrate	Not applicable.
		RNA 6000 Nano Marker	Not applicable.
		RNA 6000 Nano Ladder	Not applicable.
Response	:	RNA 6000 Nano Gel Matrix	Not applicable.
		RNA Nano Dye Concentrate	Not applicable.
		RNA 6000 Nano Marker	Not applicable.
		RNA 6000 Nano Ladder	Not applicable.
Storage	:	RNA 6000 Nano Gel Matrix	Not applicable.
		RNA Nano Dye Concentrate	Not applicable.
		RNA 6000 Nano Marker	Not applicable.
		RNA 6000 Nano Ladder	Not applicable.
Disposal	:	RNA 6000 Nano Gel Matrix	Not applicable.
		RNA Nano Dye Concentrate	Not applicable.
		RNA 6000 Nano Marker	Not applicable.
		RNA 6000 Nano Ladder	Not applicable.
Supplemental label elements	:	RNA 6000 Nano Gel Matrix	Not applicable.
		RNA Nano Dye Concentrate	Not applicable.
		RNA 6000 Nano Marker	Not applicable.
		RNA 6000 Nano Ladder	Not applicable.

SECTION 2: Hazards identification

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: RNA 6000 Nano Gel Matrix	Not applicable.
	RNA Nano Dye Concentrate	Not applicable.
	RNA 6000 Nano Marker	Not applicable.
	RNA 6000 Nano Ladder	Not applicable.

Special packaging requirements

Tactile warning of danger	: RNA 6000 Nano Gel Matrix	Not applicable.
	RNA Nano Dye Concentrate	Not applicable.
	RNA 6000 Nano Marker	Not applicable.
	RNA 6000 Nano Ladder	Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: RNA 6000 Nano Gel Matrix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	RNA Nano Dye Concentrate	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	RNA 6000 Nano Marker	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	RNA 6000 Nano 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	: RNA 6000 Nano Gel Matrix	None known.
	RNA Nano Dye Concentrate	None known.
	RNA 6000 Nano Marker	None known.
	RNA 6000 Nano Ladder	None known.

SECTION 3: Composition/information on ingredients

3.1 Substances	: RNA 6000 Nano Gel Matrix	Mixture
	RNA Nano Dye Concentrate	Mixture
	RNA 6000 Nano Marker	Mixture
	RNA 6000 Nano 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	: RNA 6000 Nano 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.
	RNA Nano 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.
	RNA 6000 Nano 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.
	RNA 6000 Nano 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	: RNA 6000 Nano Gel Matrix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	RNA Nano Dye Concentrate	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	RNA 6000 Nano Marker	Remove victim to fresh air and keep at rest in a position

SECTION 4: First aid measures

		comfortable for breathing. Get medical attention if symptoms occur.
	RNA 6000 Nano Ladder	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: RNA 6000 Nano Gel Matrix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	RNA Nano Dye Concentrate	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	RNA 6000 Nano Marker	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	RNA 6000 Nano Ladder	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: RNA 6000 Nano Gel Matrix	Wash out mouth with water. 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.
	RNA Nano Dye Concentrate	Wash out mouth with water. 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.
	RNA 6000 Nano Marker	Wash out mouth with water. 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.
	RNA 6000 Nano Ladder	Wash out mouth with water. 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	: RNA 6000 Nano Gel Matrix	No action shall be taken involving any personal risk or without suitable training.
	RNA Nano Dye Concentrate	No action shall be taken involving any personal risk or without suitable training.
	RNA 6000 Nano Marker	No action shall be taken involving any personal risk or without suitable training.
	RNA 6000 Nano 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	: RNA 6000 Nano Gel Matrix	No known significant effects or critical hazards.
	RNA Nano Dye Concentrate	No known significant effects or critical hazards.
	RNA 6000 Nano Marker	No known significant effects or critical hazards.
	RNA 6000 Nano Ladder	No known significant effects or critical hazards.
Inhalation	: RNA 6000 Nano Gel Matrix	No known significant effects or critical hazards.
	RNA Nano Dye Concentrate	No known significant effects or critical hazards.
	RNA 6000 Nano Marker	No known significant effects or critical hazards.
	RNA 6000 Nano Ladder	No known significant effects or critical hazards.

SECTION 4: First aid measures

Skin contact	: RNA 6000 Nano Gel Matrix	No known significant effects or critical hazards.
	RNA Nano Dye Concentrate	No known significant effects or critical hazards.
	RNA 6000 Nano Marker	No known significant effects or critical hazards.
	RNA 6000 Nano Ladder	No known significant effects or critical hazards.
Ingestion	: RNA 6000 Nano Gel Matrix	No known significant effects or critical hazards.
	RNA Nano Dye Concentrate	No known significant effects or critical hazards.
	RNA 6000 Nano Marker	No known significant effects or critical hazards.
	RNA 6000 Nano Ladder	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: RNA 6000 Nano Gel Matrix	No specific data.
	RNA Nano Dye Concentrate	No specific data.
	RNA 6000 Nano Marker	No specific data.
	RNA 6000 Nano Ladder	No specific data.
Inhalation	: RNA 6000 Nano Gel Matrix	No specific data.
	RNA Nano Dye Concentrate	No specific data.
	RNA 6000 Nano Marker	No specific data.
	RNA 6000 Nano Ladder	No specific data.
Skin contact	: RNA 6000 Nano Gel Matrix	No specific data.
	RNA Nano Dye Concentrate	No specific data.
	RNA 6000 Nano Marker	No specific data.
	RNA 6000 Nano Ladder	No specific data.
Ingestion	: RNA 6000 Nano Gel Matrix	No specific data.
	RNA Nano Dye Concentrate	No specific data.
	RNA 6000 Nano Marker	No specific data.
	RNA 6000 Nano Ladder	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: RNA 6000 Nano Gel Matrix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	RNA Nano Dye Concentrate	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	RNA 6000 Nano Marker	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	RNA 6000 Nano Ladder	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: RNA 6000 Nano Gel Matrix	No specific treatment.
	RNA Nano Dye Concentrate	No specific treatment.
	RNA 6000 Nano Marker	No specific treatment.
	RNA 6000 Nano Ladder	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: RNA 6000 Nano Gel Matrix	Use an extinguishing agent suitable for the surrounding fire.
	RNA Nano Dye Concentrate	Use an extinguishing agent suitable for the surrounding fire.
	RNA 6000 Nano Marker	Use an extinguishing agent suitable for the surrounding fire.
	RNA 6000 Nano Ladder	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: RNA 6000 Nano Gel Matrix	None known.
	RNA Nano Dye Concentrate	None known.
	RNA 6000 Nano Marker	None known.
	RNA 6000 Nano Ladder	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: RNA 6000 Nano Gel Matrix	In a fire or if heated, a pressure increase will occur and the container may burst.
	RNA Nano Dye Concentrate	In a fire or if heated, a pressure increase will occur and the container may burst.
	RNA 6000 Nano Marker	In a fire or if heated, a pressure increase will occur and the container may burst.
	RNA 6000 Nano Ladder	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: RNA 6000 Nano Gel Matrix	No specific data.
	RNA Nano Dye Concentrate	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
	RNA 6000 Nano Marker	No specific data.
	RNA 6000 Nano Ladder	No specific data.

5.3 Advice for firefighters

Special precautions for fire-fighters	: RNA 6000 Nano 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.
	RNA Nano 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.
	RNA 6000 Nano 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.
	RNA 6000 Nano 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	: RNA 6000 Nano 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.
	RNA Nano 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.
	RNA 6000 Nano Marker	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full

SECTION 5: Firefighting measures

RNA 6000 Nano Ladder	<p>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.</p> <p>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.</p>
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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: RNA 6000 Nano 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.
RNA Nano 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.
RNA 6000 Nano 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.
RNA 6000 Nano 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

: RNA 6000 Nano 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".
RNA Nano 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".
RNA 6000 Nano 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".
RNA 6000 Nano 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

: RNA 6000 Nano 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).
RNA Nano 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).
RNA 6000 Nano 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).

SECTION 6: Accidental release measures

RNA 6000 Nano Ladder Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Methods for cleaning up :

RNA 6000 Nano 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.
RNA Nano 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.
RNA 6000 Nano 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.
RNA 6000 Nano 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 :

RNA 6000 Nano Gel Matrix	Put on appropriate personal protective equipment (see Section 8).
RNA Nano Dye Concentrate	Put on appropriate personal protective equipment (see Section 8).
RNA 6000 Nano Marker	Put on appropriate personal protective equipment (see Section 8).
RNA 6000 Nano Ladder	Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene :

RNA 6000 Nano 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.
RNA Nano 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.
RNA 6000 Nano 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.
RNA 6000 Nano Ladder	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

SECTION 7: Handling and storage

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

Storage	: RNA 6000 Nano 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.
	RNA Nano 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.
	RNA 6000 Nano Marker	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.
	RNA 6000 Nano 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	: RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	Not available. Not available. Not available. Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

: 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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties**Appearance**

Physical state	: RNA 6000 Nano Gel	Liquid.
	Matrix	
	RNA Nano Dye	Liquid.
	Concentrate	
	RNA 6000 Nano Marker	Liquid.
Colour	RNA 6000 Nano Ladder	Liquid.
	: RNA 6000 Nano Gel	Not available.
	Matrix	
	RNA Nano Dye	Blue.
	Concentrate	
Odour	RNA 6000 Nano Marker	Not available.
	RNA 6000 Nano Ladder	Not available.
	: RNA 6000 Nano Gel	Not available.
	Matrix	
	RNA Nano Dye	Not available.
Odour threshold	Concentrate	
	RNA 6000 Nano Marker	Not available.
	RNA 6000 Nano Ladder	Not available.
	: RNA 6000 Nano Gel	Not available.
	Matrix	
Melting point/freezing point	RNA Nano Dye	Not available.
	Concentrate	
	RNA 6000 Nano Marker	Not available.
	RNA 6000 Nano Ladder	Not available.
	: RNA 6000 Nano Gel	0°C
Initial boiling point and boiling range	Matrix	
	RNA Nano Dye	18.4°C
	Concentrate	
	RNA 6000 Nano Marker	0°C
	RNA 6000 Nano Ladder	0°C
Flammability	: RNA 6000 Nano Gel	100°C
	Matrix	
	RNA Nano Dye	189°C
	Concentrate	
	RNA 6000 Nano Marker	100°C
Upper/lower flammability or explosive limits	RNA 6000 Nano Ladder	100°C
	: RNA 6000 Nano Gel	Not applicable.
	Matrix	
	RNA Nano Dye	Not applicable.
	Concentrate	
Flash point	RNA 6000 Nano Marker	Not applicable.
	RNA 6000 Nano Ladder	Not applicable.
	: RNA 6000 Nano Gel	Not available.
	Matrix	
	RNA Nano Dye	Closed cup: 94°C
Auto-ignition temperature	Concentrate	
	RNA 6000 Nano Marker	Not available.
	RNA 6000 Nano Ladder	Not available.
	:	
	:	

SECTION 9: Physical and chemical properties

Ingredient name	°C	Method
RNA Nano Dye Concentrate		
dimethyl sulfoxide	300 to 302	-

Decomposition temperature : RNA 6000 Nano Gel Matrix Not available.
 RNA Nano Dye Concentrate Not available.
 RNA 6000 Nano Marker Not available.
 RNA 6000 Nano Ladder Not available.

pH : RNA 6000 Nano Gel Matrix Not available.
 RNA Nano Dye Concentrate Not available.
 RNA 6000 Nano Marker Not available.
 RNA 6000 Nano Ladder Not available.

Viscosity : RNA 6000 Nano Gel Matrix Not available.
 RNA Nano Dye Concentrate Not available.
 RNA 6000 Nano Marker Not available.
 RNA 6000 Nano Ladder Not available.

Solubility(ies)	Media	Result
RNA 6000 Nano Gel Matrix	water	Soluble
RNA Nano Dye Concentrate	water	Soluble
RNA 6000 Nano Marker	water	Soluble
RNA 6000 Nano Ladder	water	Soluble

Partition coefficient: n-octanol/water : RNA 6000 Nano Gel Matrix Not applicable.
 RNA Nano Dye Concentrate Not applicable.
 RNA 6000 Nano Marker Not applicable.
 RNA 6000 Nano Ladder Not applicable.

Vapour pressure	Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
		mm Hg	kPa	Method	mm Hg	kPa	Method
RNA 6000 Nano Gel Matrix	water	17.5	2.3	-	92.258	12.3	-
	RNA Nano Dye Concentrate						
	dimethyl sulfoxide	0.42	0.056	EU A.4	-	-	-
RNA 6000 Nano Marker	water	17.5	2.3	-	92.258	12.3	-
	RNA 6000 Nano Ladder						

SECTION 9: Physical and chemical properties

	water	17.5	2.3	-	92.258	12.3	-
Evaporation rate	: RNA 6000 Nano Gel Matrix		Not available.				
	RNA Nano Dye Concentrate		Not available.				
	RNA 6000 Nano Marker		Not available.				
	RNA 6000 Nano Ladder		Not available.				
Relative density	: RNA 6000 Nano Gel Matrix		Not available.				
	RNA Nano Dye Concentrate		Not available.				
	RNA 6000 Nano Marker		Not available.				
	RNA 6000 Nano Ladder		Not available.				
Vapour density	: RNA 6000 Nano Gel Matrix		Not available.				
	RNA Nano Dye Concentrate		Not available.				
	RNA 6000 Nano Marker		Not available.				
	RNA 6000 Nano Ladder		Not available.				
Explosive properties	: RNA 6000 Nano Gel Matrix		Not available.				
	RNA Nano Dye Concentrate		Not available.				
	RNA 6000 Nano Marker		Not available.				
	RNA 6000 Nano Ladder		Not available.				
Oxidising properties	: RNA 6000 Nano Gel Matrix		Not available.				
	RNA Nano Dye Concentrate		Not available.				
	RNA 6000 Nano Marker		Not available.				
	RNA 6000 Nano Ladder		Not available.				
Particle characteristics							
Median particle size	: RNA 6000 Nano Gel Matrix		Not applicable.				
	RNA Nano Dye Concentrate		Not applicable.				
	RNA 6000 Nano Marker		Not applicable.				
	RNA 6000 Nano Ladder		Not applicable.				

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: RNA 6000 Nano Gel Matrix	No specific test data related to reactivity available for this product or its ingredients.
	RNA Nano Dye Concentrate	No specific test data related to reactivity available for this product or its ingredients.
	RNA 6000 Nano Marker	No specific test data related to reactivity available for this product or its ingredients.
	RNA 6000 Nano Ladder	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: RNA 6000 Nano Gel Matrix	The product is stable.
	RNA Nano Dye Concentrate	The product is stable.
	RNA 6000 Nano Marker	The product is stable.
	RNA 6000 Nano Ladder	The product is stable.

SECTION 10: Stability and reactivity

10.3 Possibility of hazardous reactions	: RNA 6000 Nano Gel Matrix	Under normal conditions of storage and use, hazardous reactions will not occur.
	RNA Nano Dye Concentrate	Under normal conditions of storage and use, hazardous reactions will not occur.
	RNA 6000 Nano Marker	Under normal conditions of storage and use, hazardous reactions will not occur.
	RNA 6000 Nano Ladder	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: RNA 6000 Nano Gel Matrix	No specific data.
	RNA Nano Dye Concentrate	No specific data.
	RNA 6000 Nano Marker	No specific data.
	RNA 6000 Nano Ladder	No specific data.
10.5 Incompatible materials	: RNA 6000 Nano Gel Matrix	May react or be incompatible with oxidising materials.
	RNA Nano Dye Concentrate	May react or be incompatible with oxidising materials.
	RNA 6000 Nano Marker	May react or be incompatible with oxidising materials.
	RNA 6000 Nano Ladder	May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	: RNA 6000 Nano Gel Matrix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	RNA Nano Dye Concentrate	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	RNA 6000 Nano Marker	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	RNA 6000 Nano 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.

SECTION 11: Toxicological information

Aspiration hazard

Not available.

Information on likely routes of exposure	: RNA 6000 Nano Gel Matrix	Not available.
	RNA Nano Dye Concentrate	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	RNA 6000 Nano Marker	Not available.
	RNA 6000 Nano Ladder	Not available.

Potential acute health effects

Inhalation	: RNA 6000 Nano Gel Matrix	No known significant effects or critical hazards.
	RNA Nano Dye Concentrate	No known significant effects or critical hazards.
	RNA 6000 Nano Marker	No known significant effects or critical hazards.
	RNA 6000 Nano Ladder	No known significant effects or critical hazards.
	Ingestion	: RNA 6000 Nano Gel Matrix
RNA Nano Dye Concentrate		No known significant effects or critical hazards.
RNA 6000 Nano Marker		No known significant effects or critical hazards.
RNA 6000 Nano Ladder		No known significant effects or critical hazards.
Skin contact		: RNA 6000 Nano Gel Matrix
	RNA Nano Dye Concentrate	No known significant effects or critical hazards.
	RNA 6000 Nano Marker	No known significant effects or critical hazards.
	RNA 6000 Nano Ladder	No known significant effects or critical hazards.
	Eye contact	: RNA 6000 Nano Gel Matrix
RNA Nano Dye Concentrate		No known significant effects or critical hazards.
RNA 6000 Nano Marker		No known significant effects or critical hazards.
RNA 6000 Nano Ladder		No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: RNA 6000 Nano Gel Matrix	No specific data.
	RNA Nano Dye Concentrate	No specific data.
	RNA 6000 Nano Marker	No specific data.
	RNA 6000 Nano Ladder	No specific data.
	Ingestion	: RNA 6000 Nano Gel Matrix
RNA Nano Dye Concentrate		No specific data.
RNA 6000 Nano Marker		No specific data.
RNA 6000 Nano Ladder		No specific data.
Skin contact		: RNA 6000 Nano Gel Matrix
	RNA Nano Dye Concentrate	No specific data.
	RNA 6000 Nano Marker	No specific data.
	RNA 6000 Nano Ladder	No specific data.
	Eye contact	: RNA 6000 Nano Gel Matrix
RNA Nano Dye Concentrate		No specific data.
RNA 6000 Nano Marker		No specific data.
RNA 6000 Nano Ladder		No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

SECTION 11: Toxicological information

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

Conclusion/Summary : Not available.

General	RNA 6000 Nano Gel Matrix	No known significant effects or critical hazards.
	RNA Nano Dye Concentrate	No known significant effects or critical hazards.
	RNA 6000 Nano Marker	No known significant effects or critical hazards.
	RNA 6000 Nano Ladder	No known significant effects or critical hazards.
Carcinogenicity	RNA 6000 Nano Gel Matrix	No known significant effects or critical hazards.
	RNA Nano Dye Concentrate	No known significant effects or critical hazards.
	RNA 6000 Nano Marker	No known significant effects or critical hazards.
	RNA 6000 Nano Ladder	No known significant effects or critical hazards.
Mutagenicity	RNA 6000 Nano Gel Matrix	No known significant effects or critical hazards.
	RNA Nano Dye Concentrate	No known significant effects or critical hazards.
	RNA 6000 Nano Marker	No known significant effects or critical hazards.
	RNA 6000 Nano Ladder	No known significant effects or critical hazards.
Reproductive toxicity	RNA 6000 Nano Gel Matrix	No known significant effects or critical hazards.
	RNA Nano Dye Concentrate	No known significant effects or critical hazards.
	RNA 6000 Nano Marker	No known significant effects or critical hazards.
	RNA 6000 Nano Ladder	No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

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

SECTION 12: Ecological information

- 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 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID 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.

SECTION 14: Transport information

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

No listed substance

Label	:	RNA 6000 Nano Gel Matrix	Not applicable.
		RNA Nano Dye Concentrate	Not applicable.
		RNA 6000 Nano Marker	Not applicable.
		RNA 6000 Nano Ladder	Not applicable.

Other EU regulations

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

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

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

SECTION 15: Regulatory information

- Eurasian Economic Union** : Russian Federation inventory: Not determined.
- Japan** : **Japan inventory (CSCL)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
- New Zealand** : All components are listed or exempted.
- Philippines** : Not determined.
- Republic of Korea** : Not determined.
- Taiwan** : All components are listed or exempted.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : Not determined.
- Viet Nam** : Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

- Abbreviations and acronyms** :
- ATE = Acute Toxicity Estimate
 - CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 - DMEL = Derived Minimal Effect Level
 - DNEL = Derived No Effect Level
 - EUH statement = CLP-specific Hazard statement
 - N/A = Not available
 - PBT = Persistent, Bioaccumulative and Toxic
 - PNEC = Predicted No Effect Concentration
 - RRN = REACH Registration Number
 - vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Not classified.	

Full text of abbreviated H statements

Not applicable.

Full text of classifications [CLP/GHS]

Not applicable.

- Date of issue/ Date of revision** : 27/09/2023
- Date of previous issue** : No previous validation
- Version** : 1

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