

SAFETY DATA SHEET

Agilent RNA 6000 Nano Kit, Part Number 5067-1511

Section 1. Identification

Product identifier	: Agilent RNA 6000 Nano Kit, Part Number 5067-1511	
Part no. (chemical kit)	: 5067-1511	
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.
	<u>RNA 6000 Nano ladder</u>	<u>G2938-80038</u>
	RNA 6000 Nano Ladder	Not available.

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

Material 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

Supplier/Manufacturer	: Agilent Technologies Australia Pty Ltd 679 Springvale Road Mulgrave Victoria 3170, Australia 1800 802 402
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Emergency telephone number (with hours of operation)	: CHEMTREC®: +(61)-290372994
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Section 2. Hazard(s) identification

Classification of the substance or mixture

Not classified.

GHS 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.

Section 2. Hazard(s) identification

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		
Additional warning phrases	: 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 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 and ingredient information

Substance/mixture	: RNA 6000 Nano Gel Matrix	Mixture
	RNA Nano Dye Concentrate	Mixture
	RNA 6000 Nano Marker	Mixture
	RNA 6000 Nano Ladder	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
RNA Nano Dye Concentrate Dimethyl sulfoxide	≥90	67-68-5

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

Description of necessary 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.

Section 4. First aid measures

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 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.

Most important symptoms/effects, 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.
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.

Section 4. First aid measures

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.

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

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.
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.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Section 5. Firefighting measures

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.
Specific hazards arising from the chemical	: 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 thermal decomposition 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.
Special protective actions 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.
	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.
	RNA 6000 Nano Marker	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	RNA 6000 Nano Ladder	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

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".
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).
	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).

Section 6. Accidental release measures

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.

Section 7. Handling and storage

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. Workers should wash hands and face

Section 7. Handling and storage

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.

Conditions for safe storage, including any incompatibilities : 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.

Section 8. Exposure controls and personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
RNA Nano Dye Concentrate Dimethyl sulfoxide	DFG MAC-values list (Germany, 8/2020). Absorbed through skin. PEAK: 320 mg/m ³ , 4 times per shift, 15 minutes. TWA: 160 mg/m ³ 8 hours. PEAK: 100 ppm, 4 times per shift, 15 minutes. TWA: 50 ppm 8 hours.

- 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: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

- Physical state** : RNA 6000 Nano Gel Matrix Liquid.
 RNA Nano Dye Concentrate Liquid.
 RNA 6000 Nano Marker Liquid.
 RNA 6000 Nano Ladder Liquid.

Section 9. Physical and chemical properties and safety characteristics

Colour	:	RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	Not available. Blue. Not available. Not available.
Odour	:	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.
Odour threshold	:	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.
pH	:	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.
Melting point/freezing point	:	RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	0°C (32°F) 18.4°C (65.1°F) 0°C (32°F) 0°C (32°F)
Boiling point, initial boiling point, and boiling range	:	RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	100°C (212°F) 189°C (372.2°F) 100°C (212°F) 100°C (212°F)
Flash point	:	RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	Not available. Closed cup: 94°C (201.2°F) Not available. Not available.

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
RNA 6000 Nano Gel Matrix Acetic acid, (ethylenedinitrilo)tetra-, disodium salt, dihydrate	>100	>212				
RNA 6000 Nano Ladder Acetic acid, (ethylenedinitrilo)tetra-, disodium salt, dihydrate	>100	>212				

Evaporation rate	:	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.
Flammability	:	RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	Not applicable. Not applicable. Not applicable. Not applicable.
Lower and upper explosion limit/flammability limit	:	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.
Vapour pressure	:		

Section 9. Physical and chemical properties and safety characteristics

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	23.8	3.2		92.258	12.3	
RNA Nano Dye Concentrate						
Dimethyl sulfoxide	0.42	0.056	EU A.4			
RNA 6000 Nano Marker						
Water	23.8	3.2		92.258	12.3	
RNA 6000 Nano Ladder						
Water	23.8	3.2		92.258	12.3	

- Relative 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.
- 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.
- Solubility** : RNA 6000 Nano Gel Matrix Easily soluble in the following materials: cold water and hot water.
 RNA Nano Dye Concentrate Soluble in the following materials: cold water and hot water.
 RNA 6000 Nano Marker Easily soluble in the following materials: cold water and hot water.
 RNA 6000 Nano Ladder Easily soluble in the following materials: cold water and hot water.
- 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.
- Auto-ignition temperature** :
- | Ingredient name | °C | °F | Method |
|---------------------------------|------------|--------------|--------|
| RNA Nano Dye Concentrate | | | |
| Dimethyl sulfoxide | 300 to 302 | 572 to 575.6 | |
- 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.
- 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.
- 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.

Section 10. Stability and reactivity

Reactivity	: RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	The product is stable. The product is stable. The product is stable. The product is stable.
Possibility of hazardous reactions	: RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	No specific data. No specific data. No specific data. No specific data.
Incompatible materials	: RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
Hazardous decomposition products	: RNA 6000 Nano Gel Matrix RNA Nano Dye Concentrate RNA 6000 Nano Marker RNA 6000 Nano Ladder	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. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

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

Irritation/Corrosion

Section 11. Toxicological information

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

Sensitisation

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

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.

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.

Symptoms related to the physical, chemical and toxicological characteristics

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.

Section 11. Toxicological information

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.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: 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.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
RNA Nano Dye Concentrate Dimethyl sulfoxide	14500	40000	N/A	N/A	N/A

Other information	: 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.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
RNA Nano Dye Concentrate Dimethyl sulfoxide	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 100 µl/L Marine water	Algae - Ulva lactuca	72 hours
	Chronic NOEC 100 µl/L Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	21 days

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
RNA Nano Dye Concentrate Dimethyl sulfoxide	OECD 301D Ready Biodegradability - Closed Bottle Test	31 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
RNA Nano Dye Concentrate Dimethyl sulfoxide	-	-	Not readily

Bioaccumulative potential

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

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : 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. 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. 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

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

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 IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

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Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

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.
Europe	: 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	: <input checked="" type="checkbox"/> Not determined.
Viet Nam	: Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision	: 03/02/2022
Date of previous issue	: 19/12/2019
Version	: 9

Section 16. Any other relevant information

Key to abbreviations : ADG = Australian Dangerous Goods
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations

Procedure used to derive the classification

Classification
Not classified.

References : Not available.

✔ Indicates information that has changed from previously issued version.

Notice to reader

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