Section 1. Identification

Product identifier: Agilent RNA 6000 Nano Kit, Part Number 5067-1511
Part No. (Chemical Kit): 5067-1511
Part No.: 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.

Supplier/Manufacturer: Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation): CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture
Not classified.

RNA Nano Dye Concentrate Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: > 60%

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:
- 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:

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>(w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNA Nano Dye Concentrate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>≥90</td>
<td>67-68-5</td>
</tr>
</tbody>
</table>

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. 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. |
| **RNA Nano Dye Concentrate** | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| **RNA 6000 Nano 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. |
| **RNA 6000 Nano 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. |

### 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. |
Section 4. First aid measures

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.

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.

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

<table>
<thead>
<tr>
<th><strong>Extinguishing media</strong></th>
<th><strong>Suitable extinguishing media</strong></th>
<th><strong>Unsuitable extinguishing media</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>RNA 6000 Nano Gel Matrix</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>RNA 6000 Nano Gel Matrix</td>
</tr>
<tr>
<td>RNA Nano Dye Concentrate</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>RNA Nano Dye Concentrate</td>
</tr>
<tr>
<td>RNA 6000 Nano Marker</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>RNA 6000 Nano Marker</td>
</tr>
<tr>
<td>RNA 6000 Nano Ladder</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>RNA 6000 Nano Ladder</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Specific hazards arising from the chemical</strong></th>
<th><strong>RNA 6000 Nano Gel Matrix</strong></th>
<th><strong>RNA Nano Dye Concentrate</strong></th>
<th><strong>RNA 6000 Nano Marker</strong></th>
<th><strong>RNA 6000 Nano Ladder</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Hazardous thermal decomposition products</strong></th>
<th><strong>RNA 6000 Nano Gel Matrix</strong></th>
<th><strong>RNA Nano Dye Concentrate</strong></th>
<th><strong>RNA 6000 Nano Marker</strong></th>
<th><strong>RNA 6000 Nano Ladder</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>No specific data. Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Special protective actions for fire-fighters</strong></th>
<th><strong>RNA 6000 Nano Gel Matrix</strong></th>
<th><strong>RNA Nano Dye Concentrate</strong></th>
<th><strong>RNA 6000 Nano Marker</strong></th>
<th><strong>RNA 6000 Nano Ladder</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Special protective equipment for fire-fighters</strong></th>
<th><strong>RNA 6000 Nano Gel Matrix</strong></th>
<th><strong>RNA Nano Dye Concentrate</strong></th>
<th><strong>RNA 6000 Nano Marker</strong></th>
<th><strong>RNA 6000 Nano Ladder</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
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<td></td>
</tr>
</tbody>
</table>
Section 5. Firefighting measures

(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.
### Section 7. Handling and storage

<table>
<thead>
<tr>
<th>Product</th>
<th>Conditions for safe storage, including any incompatibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNA 6000 Nano Ladder</td>
<td>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.</td>
</tr>
<tr>
<td>RNA 6000 Nano Gel Matrix</td>
<td>Storage temperature: 4°C (39.2°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
<tr>
<td>RNA Nano Dye Concentrate</td>
<td>Storage temperature: 4°C (39.2°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
<tr>
<td>RNA 6000 Nano Marker</td>
<td>Storage temperature: 4°C (39.2°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
<tr>
<td>RNA 6000 Nano Ladder</td>
<td>Storage temperature: 4°C (39.2°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</td>
</tr>
</tbody>
</table>
Section 8. Exposure controls and personal protection

**Control parameters**

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNA Nano Dye Concentrate</td>
<td>DFG MAC-values list (Germany, 7/2015). Absorbed through skin.</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>PEAK: 320 mg/m³, 4 times per shift, 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>TWA: 160 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>PEAK: 100 ppm, 4 times per shift, 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>TWA: 50 ppm 8 hours.</td>
</tr>
</tbody>
</table>

**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

**Appearance**

**Physical state**

RNA 6000 Nano Gel Matrix: Liquid.
RNA Nano Dye Concentrate: Liquid.
RNA 6000 Nano Marker: Liquid.
RNA 6000 Nano Ladder: Liquid.

**Colour**

RNA 6000 Nano Gel Matrix: Not available.
RNA Nano Dye Concentrate: Blue.
RNA 6000 Nano Marker: Not available.
RNA 6000 Nano Ladder: Not available.
Section 9. Physical and chemical properties

**Odour**
- 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.

**Odour threshold**
- 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.

**Melting point**
- RNA 6000 Nano Gel Matrix: 0°C (32°F).
- RNA Nano Dye Concentrate: 18.4°C (65.1°F).
- RNA 6000 Nano Marker: 0°C (32°F).
- RNA 6000 Nano Ladder: 0°C (32°F).

**Boiling point**
- RNA 6000 Nano Gel Matrix: 100°C (212°F).
- RNA 6000 Nano Marker: 100°C (212°F).
- RNA 6000 Nano Ladder: 100°C (212°F).

**Flash point**
- RNA 6000 Nano Gel Matrix: Not available.
- RNA Nano Dye Concentrate: Closed cup: 94°C (201.2°F).
- RNA 6000 Nano Marker: Not available.
- RNA 6000 Nano Ladder: Not available.

**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.

**Flammability (solid, gas)**
- 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.

**Lower and upper explosive (flammable) limits**
- 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 pressure**
- 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.

**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 available.
- RNA Nano Dye Concentrate: Not available.
- RNA 6000 Nano Marker: Not available.
- RNA 6000 Nano Ladder: Not available.
## Section 9. Physical and chemical properties

### Auto-ignition 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.

### 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.

## Section 10. Stability and reactivity

### 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.

### 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.

### 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.

### 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.

### 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.

### 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.

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**Date of issue/Date of revision**: 17/05/2017  
**Date of previous issue**: 10/06/2014  
**Version**: 7
Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNA Nano Dye Concentrate</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>40000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>14500 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNA Nano Dye Concentrate</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

**Sensitisation**

Not available.

**Mutagenicity**

Not available.

**Carcinogenicity**

Not available.

**Reproductive toxicity**

Not available.

**Teratogenicity**

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.
Section 11. Toxicological information

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.

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 6000Nano 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
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.

Teratogenicity :
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 11. Toxicological information

Developmental effects:
- 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.

Fertility effects:
- 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
Not available.

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNA Nano Dye Concentrate</td>
<td>Acute LC50 25000 ppm Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td>Acute LC50 34000000 µg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td>Chronic NOEC 100 ul/L Marine water</td>
<td></td>
<td>Algae - Ulva lactuca</td>
<td>72 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
Not available.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNA Nano Dye Concentrate</td>
<td>-1.35</td>
<td>3.16</td>
<td>low</td>
</tr>
<tr>
<td>Dimethyl sulfoxide</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>): 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 Annex II of Marpol and the IBC Code**: Not available.

Section 15. Regulatory information

**Standard Uniform Schedule of Medicine and Poisons**

- 6

**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 (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**

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Canada</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>China</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Europe</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Japan</td>
<td>Japan inventory (ENCS): All components are listed or exempted.</td>
</tr>
<tr>
<td></td>
<td>Japan inventory (ISHL): All components are listed or exempted.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Not determined.</td>
</tr>
<tr>
<td>New Zealand</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Philippines</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Taiwan</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Turkey</td>
<td>Not determined.</td>
</tr>
<tr>
<td>United States</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 17/05/2017

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Version: 7
### Section 16. Any other relevant information

#### History

<table>
<thead>
<tr>
<th>Date of issue/Date of revision</th>
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</tr>
<tr>
<td>Version</td>
<td>7</td>
</tr>
</tbody>
</table>

#### Key to abbreviations

- ADG = Australian Dangerous Goods
- 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
- NOHSC = National Occupational Health and Safety Commission
- SUSMP = Standard Uniform Schedule of Medicine and Poisons
- UN = United Nations

#### Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not classified.</td>
<td></td>
</tr>
</tbody>
</table>

#### References

Not available.

*Indicates information that has changed from previously issued version.*

#### Notice to reader

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