SAFETY DATA SHEET
Agilent RNA 6000 Nano Ladder, Part Number 5067-1529

Section 1. Identification

1.1 Product identifier
Product name : Agilent RNA 6000 Nano Ladder, Part Number 5067-1529
Part No. (Chemical Kit) : 5067-1529
Part No. : RNA 6000 Nano Ladder
Validation date : 07/31/2014.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses : Analytical chemistry. Research and Development
RNA 6000 Nano Ladder 1 x 0.035 ml

1.3 Details of the supplier of the safety data sheet
Supplier/Manufacturer : Agilent Technologies, Inc.
Logistics Center - Americas
500 Ships Landing Way
New Castle, Delaware 19720
800-227-9770

1.4 Emergency telephone number
In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture
OSHA/HCS status : RNA 6000 Nano Ladder
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture
Not classified.

2.2 GHS label elements
Signal word : RNA 6000 Nano Ladder No signal word.
Hazard statements : RNA 6000 Nano Ladder No known significant effects or critical hazards.
Precautionary statements
Prevention : RNA 6000 Nano Ladder Not applicable.
Response : RNA 6000 Nano Ladder Not applicable.
Storage : RNA 6000 Nano Ladder Not applicable.
Disposal : RNA 6000 Nano Ladder Not applicable.
Supplemental label elements : RNA 6000 Nano Ladder None known.

2.3 Other hazards

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Section 2. Hazards identification

Hazards not otherwise classified: RNA 6000 Nano Ladder None known.

Section 3. Composition/information on ingredients

Substance/mixture: RNA 6000 Nano Ladder Mixture

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

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 and hence require reporting in this section.

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

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

Ingestion: 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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: RNA 6000 Nano Ladder
No known significant effects or critical hazards.

Inhalation: RNA 6000 Nano Ladder
No known significant effects or critical hazards.

Skin contact: RNA 6000 Nano Ladder
No known significant effects or critical hazards.

Ingestion: RNA 6000 Nano Ladder
No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: RNA 6000 Nano Ladder
No specific data.

Inhalation: RNA 6000 Nano Ladder
No specific data.

Skin contact: RNA 6000 Nano Ladder
No specific data.

Ingestion: RNA 6000 Nano Ladder
No specific data.

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

Notes to physician: RNA 6000 Nano Ladder
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: RNA 6000 Nano Ladder
No specific treatment.

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Section 4. First aid measures

Protection of first-aiders: RNA 6000 Nano Ladder
No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: RNA 6000 Nano Ladder
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: RNA 6000 Nano Ladder
None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical: RNA 6000 Nano Ladder
In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products: No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters: 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 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

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders: 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 Ladder
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

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.

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Section 7. Handling and storage

7.1 Precautions for safe handling

<table>
<thead>
<tr>
<th>Protective measures</th>
<th>RNA 6000 Nano Ladder</th>
<th>Put on appropriate personal protective equipment (see Section 8).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advice on general occupational hygiene</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>
<td></td>
</tr>
</tbody>
</table>

7.2 Conditions for safe storage, including any incompatibilities

| RNA 6000 Nano Ladder | Storage temperature: -20°C (-4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |

7.3 Specific end use(s)

| Recommendations | RNA 6000 Nano Ladder | Industrial applications, Professional applications. |
| Industrial sector specific solutions | Not applicable. |

Section 8. Exposure controls/personal protection

8.1 Control parameters

| Occupational exposure limits | None. |

8.2 Exposure controls

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

Individual protection measures

| Hygiene measures | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| Eye/face protection | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. |

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### Section 8. Exposure controls/personal protection

**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**
- Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

### Section 9. Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>RNA 6000 Nano Ladder Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Odor</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>pH</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Melting point</td>
<td>RNA 6000 Nano Ladder 0°C (32°F)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>RNA 6000 Nano Ladder 100°C (212°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>RNA 6000 Nano Ladder Not applicable</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>RNA 6000 Nano Ladder Easily soluble in the following materials: cold water and hot water</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>RNA 6000 Nano Ladder Not available</td>
</tr>
</tbody>
</table>
### Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>10.1 Reactivity</th>
<th>RNA 6000 Nano Ladder</th>
<th>No specific test data related to reactivity available for this product or its ingredients.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.2 Chemical stability</td>
<td>RNA 6000 Nano Ladder</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>10.3 Possibility of hazardous reactions</td>
<td>RNA 6000 Nano Ladder</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>10.4 Conditions to avoid</td>
<td>RNA 6000 Nano Ladder</td>
<td>No specific data.</td>
</tr>
<tr>
<td>10.5 Incompatible materials</td>
<td>RNA 6000 Nano Ladder</td>
<td>No specific data.</td>
</tr>
<tr>
<td>10.6 Hazardous decomposition products</td>
<td>RNA 6000 Nano Ladder</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>

### Section 11. Toxicological information

#### 11.1 Information on toxicological effects

- **Acute toxicity**
  - Not available.

- **Irritation/Corrosion**
  - Not available.

- **Sensitization**
  - 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 the likely routes of exposure

- **Not available.**

#### Potential acute health effects

- **Eye contact**
  - RNA 6000 Nano Ladder
  - No known significant effects or critical hazards.
Section 11. Toxicological information

**Inhalation**
- RNA 6000 Nano Ladder
  - No known significant effects or critical hazards.

**Skin contact**
- RNA 6000 Nano Ladder
  - No known significant effects or critical hazards.

**Ingestion**
- 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 Ladder
  - No specific data.

**Inhalation**
- RNA 6000 Nano Ladder
  - No specific data.

**Skin contact**
- RNA 6000 Nano Ladder
  - No specific data.

**Ingestion**
- RNA 6000 Nano Ladder
  - No specific data.

**General**
- RNA 6000 Nano Ladder
  - No known significant effects or critical hazards.

**Carcinogenicity**
- RNA 6000 Nano Ladder
  - No known significant effects or critical hazards.

**Mutagenicity**
- RNA 6000 Nano Ladder
  - No known significant effects or critical hazards.

**Teratogenicity**
- RNA 6000 Nano Ladder
  - No known significant effects or critical hazards.

**Developmental effects**
- RNA 6000 Nano Ladder
  - No known significant effects or critical hazards.

**Fertility effects**
- RNA 6000 Nano Ladder
  - No known significant effects or critical hazards.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**
- Potential immediate effects
  - Not available.

- Potential delayed effects
  - Not available.

**Long term exposure**
- Potential immediate effects
  - Not available.

- Potential delayed effects
  - Not available.

**Potential chronic health effects**
- Not available.

**Numerical measures of toxicity**

**Acute toxicity estimates**
- Not available.

**Other information**
- RNA 6000 Nano Ladder
  - Not available.

Section 12. Ecological information

**12.1 Toxicity**
- Not available.

**12.2 Persistence and degradability**
- Not available.

**12.3 Bioaccumulative potential**
- Not available.
Section 12. Ecological information

12.4 Mobility in soil

Soil/water partition coefficient (K\text{OC}) : Not available.

12.5 Other adverse effects : RNA 6000 Nano Ladder

No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

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

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

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

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

Section 14. Transport information

Regulatory information

DOT / IMDG / IATA : Not regulated.

Section 15. Regulatory information

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


Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed
SARA 302/304

Composition/information on ingredients

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Section 15. Regulatory information

No products were found.

**SARA 304 RQ**
- Not applicable.

**SARA 311/312**
- Classification: Not applicable.
- Composition/information on ingredients: No products were found.

**State regulations**
- **Massachusetts**: None of the components are listed.
- **New York**: None of the components are listed.
- **New Jersey**: None of the components are listed.
- **Pennsylvania**: None of the components are listed.

**California Prop. 65**
- **WARNING**: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

**Canada inventory**
- Not determined.

**International regulations**
- **International lists**
  - **Australia inventory (AICS)**: Not determined.
  - **China inventory (IECSC)**: Not determined.
  - **Japan inventory**: Not determined.
  - **Korea inventory**: Not determined.
  - **Malaysia Inventory (EHS Register)**: Not determined.
  - **New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
  - **Philippines inventory (PICCS)**: Not determined.
  - **Taiwan inventory (CSNN)**: Not determined.

**Chemical Weapons**
- **Convention List Schedule I Chemicals**: Not listed
- **Convention List Schedule II Chemicals**: Not listed
- **Convention List Schedule III Chemicals**: Not listed

Section 16. Other information

**History**
- **Date of issue**: 07/31/2014.
- **Date of previous issue**: 04/25/2012.
- **Version**: 5

Indicates information that has changed from previously issued version.

**Notice to reader**

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