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

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

1.1 Product identifier
Product name: Agilent RNA 6000 Nano Ladder, Part Number 5067-1529
Part No. (Kit): RNA 6000 Nano Ladder
Part No.: 5067-1529
Not available.

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

<table>
<thead>
<tr>
<th>Identified uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical chemistry. Research and Development</td>
</tr>
<tr>
<td>RNA 6000 Nano Ladder 1 x 0.035 ml</td>
</tr>
</tbody>
</table>

1.3 Details of the supplier of the safety data sheet
Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000
e-mail address of person responsible for this SDS: pdl-msds_author@agilent.com

1.4 Emergency telephone number
Emergency telephone number (with hours of operation): CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Product definition: RNA 6000 Nano Ladder Mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Not classified.

Classification according to Directive 1999/45/EC [DPD]
RNA 6000 Nano Ladder The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification: RNA 6000 Nano Ladder Not classified.
See Section 16 for the full text of the R phrases or H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements
Signal word: No signal word.
Hazard statements: No known significant effects or critical hazards.

Precautionary statements
Prevention: Not applicable.
Response: Not applicable.
Storage: Not applicable.
Disposal: Not applicable.
Hazardous ingredients: No hazardous ingredient.

Date of issue/Date of revision: 31/07/2014
SECTION 2: Hazards identification

Supplemental label elements: RNA 6000 Nano Ladder Not applicable.

Special packaging requirements
Tactile warning of danger: RNA 6000 Nano Ladder Not applicable.

2.3 Other hazards
Other hazards which do not result in classification: RNA 6000 Nano Ladder None known.

SECTION 3: Composition/information on ingredients

Substance/mixture: RNA 6000 Nano Ladder Mixture

Product/ingredient name: RNA 6000 Nano Ladder Mixture

No hazardous ingredient

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[5] Substance of equivalent concern

SECTION 4: First aid measures

4.1 Description of 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.

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

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: RNA 6000 Nano 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.
Agilent RNA 6000 Nano Ladder, Part Number 5067-1529

SECTION 4: First aid measures

<table>
<thead>
<tr>
<th>Skin contact</th>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>: RNA 6000 Nano Ladder</td>
<td>: RNA 6000 Nano Ladder</td>
</tr>
<tr>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

4.3 Indication of any immediate medical attention and special treatment needed

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.

SECTION 5: Firefighting 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

Hazards from the substance or mixture: RNA 6000 Nano Ladder
In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products: RNA 6000 Nano Ladder
No specific data.

5.3 Advice for firefighters

Special precautions 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: 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 Ladder
If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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

6.3 Methods and materials for containment and cleaning up

Methods for 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 6: Accidental release measures

6.4 Reference to other sections: See Section 1 for emergency contact information.
                                See Section 8 for information on appropriate personal protective equipment.
                                See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures: RNA 6000 Nano Ladder
Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene: 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 before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities: 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 unlabelled 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
No exposure limit value known.

Recommended monitoring procedures
If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived effect levels
No DNELs available.

Predicted effect concentrations
No PNECs available.

8.2 Exposure controls

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

Individual protection measures
SECTION 8: Exposure controls/personal protection

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: 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.

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance


Colour: RNA 6000 Nano Ladder - Not available.

Odour: RNA 6000 Nano Ladder - Not available.

Odour threshold: RNA 6000 Nano Ladder - Not available.

pH: RNA 6000 Nano Ladder - Not available.

Melting point/freezing point: RNA 6000 Nano Ladder - 0°C

Initial boiling point and boiling range: RNA 6000 Nano Ladder - 100°C

Flash point: RNA 6000 Nano Ladder - Not available.

Evaporation rate: RNA 6000 Nano Ladder - Not available.

Flammability (solid, gas): RNA 6000 Nano Ladder - Not applicable.

Upper/lower flammability or explosive limits: RNA 6000 Nano Ladder - Not available.

Vapour pressure: RNA 6000 Nano Ladder - Not available.

Vapour density: RNA 6000 Nano Ladder - Not available.

Relative density: RNA 6000 Nano Ladder - Not available.

Solubility(ies): RNA 6000 Nano Ladder - Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water: RNA 6000 Nano Ladder - Not available.

Auto-ignition temperature: RNA 6000 Nano Ladder - Not available.

Decomposition temperature: RNA 6000 Nano Ladder - Not available.

Viscosity: RNA 6000 Nano Ladder - Not available.
SECTION 9: Physical and chemical properties

Explosive properties: RNA 6000 Nano Ladder Not available.

9.2 Other information
No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity: RNA 6000 Nano Ladder No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability: RNA 6000 Nano Ladder The product is stable.

10.3 Possibility of hazardous reactions: RNA 6000 Nano Ladder Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid: RNA 6000 Nano Ladder No specific data.

10.5 Incompatible materials: RNA 6000 Nano Ladder No specific data.

10.6 Hazardous decomposition products: RNA 6000 Nano Ladder Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Not available.

Acute toxicity estimates
Not available.

Irritation/Corrosion
Conclusion/Summary: Not available.

Sensitiser
Conclusion/Summary: Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity
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

Potential acute health effects

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

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

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

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

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: RNA 6000 Nano Ladder No specific data.

Ingestion: RNA 6000 Nano Ladder No specific data.

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SECTION 11: Toxicological information

**Potential chronic health effects**

**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.

**Toxicokinetics**

**Absorption**
- RNA 6000 Nano Ladder: Not available.

**Distribution**
- RNA 6000 Nano Ladder: Not available.

**Metabolism**
- RNA 6000 Nano Ladder: Not available.

**Elimination**
- RNA 6000 Nano Ladder: Not available.

**Other information**
- Not available.

SECTION 12: Ecological information

12.1 Toxicity

**Conclusion/Summary**
- Not available.

12.2 Persistence and degradability

**Conclusion/Summary**
- Not available.

12.3 Bioaccumulative potential

- Not available.

12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)**
- Not available.

**Mobility**
- Not available.

12.5 Results of PBT and vPvB assessment

**PBT**
- Not applicable.

**vPvB**
- Not applicable.

12.6 Other adverse effects
- No known significant effects or critical hazards.
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

Packaging

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Regulatory information

ADR/RID / IMDG / IATA: Not regulated.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern: None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

Other EU regulations

Europe inventory: Not determined.
Black List Chemicals: Not listed
Priority List Chemicals: Not listed
Integrated pollution prevention and control list (IPPC) - Air: Not listed
Integrated pollution prevention and control list (IPPC) - Water: Not listed

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

Date of issue/Date of revision: 31/07/2014
## SECTION 16: Other information

- Indicates information that has changed from previously issued version.

### Abbreviations and acronyms

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

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

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

**Date of issue/ Date of revision**: 31/07/2014

**Date of previous issue**: 25/04/2012.

**Version**: 5

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