SAFETY DATA SHEET

Agilent Technologies

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. (chemical kit) : 5067-1529

Part no. : RNA 6000 Nano Ladder G2938-80038
RNA 6000 Nano Ladder Not available.

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

Identified uses : Analytical reagent.
For research use only.
RNA 6000 Nano Ladder 1 x 0.035 ml

Uses advised against : Not for use in diagnostic procedures (RUO).

1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.
5500 Lakeside Cheadle Royal Business Park,
Cheadle, Cheshire, SK8 3GR
United Kingdom
Tel: +44 (0) 345 712 5292
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.

See Section 16 for the full text of the H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : RNA 6000 Nano 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 Not applicable.

SECTION 2: Hazards identification

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

Special packaging requirements

Containers to be fitted with child-resistant fastenings : RNA 6000 Nano Ladder — Not applicable.

Tactile warning of danger : RNA 6000 Nano Ladder — Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : RNA 6000 Nano Ladder — This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 3: Composition/information on ingredients

3.1 Substances : RNA 6000 Nano Ladder — Mixture

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : RNA 6000 Nano 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. 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

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 any immediate medical attention and special treatment needed

SECTION 4: First aid measures

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 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 : 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 material 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.

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

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

7.3 Specific end use(s)

Recommendations : RNA 6000 Nano Ladder — Industrial applications, Professional applications.

Industrial sector specific solutions : RNA 6000 Nano Ladder — Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

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

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 8: Exposure controls/personal protection

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	RNA 6000 Nano Ladder	Liquid.
Colour	:	RNA 6000 Nano Ladder	Not available.
Odour	:	RNA 6000 Nano Ladder	Not available.
Odour threshold	:	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
Flammability	:	RNA 6000 Nano Ladder	Not applicable.
Upper/lower flammability or explosive limits	:	RNA 6000 Nano Ladder	Not available.
Flash point	:	RNA 6000 Nano Ladder	Not available.
Auto-ignition temperature	:	RNA 6000 Nano Ladder	Not available.
Decomposition temperature	:	RNA 6000 Nano Ladder	Not available.
pH	:	RNA 6000 Nano Ladder	Not available.
Viscosity	:	RNA 6000 Nano Ladder	Not available.

Solubility(ies) :

Media	Result
RNA 6000 Nano Ladder water	Soluble

Partition coefficient: n-octanol/water	:	RNA 6000 Nano Ladder	Not applicable.
Vapour pressure	:		

SECTION 9: Physical and chemical properties

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
RNA 6000 Nano Ladder						
water	23.8	3.2		92.258	12.3	

Evaporation rate : RNA 6000 Nano Ladder Not available.

Relative density : RNA 6000 Nano Ladder Not available.

Vapour density : RNA 6000 Nano Ladder Not available.

Explosive properties : RNA 6000 Nano Ladder Not available.

Oxidising properties : RNA 6000 Nano Ladder Not available.

Particle characteristics

Median particle size : RNA 6000 Nano Ladder Not applicable.

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 May react or be incompatible with oxidising materials.

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

Acute toxicity estimates

N/A

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

SECTION 11: Toxicological information

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 Ladder Not available.

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.

Skin contact : RNA 6000 Nano Ladder No specific data.

Eye contact : 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 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.

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

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

SECTION 12: Ecological information

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

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

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

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not listed.

Label	:	RNA 6000 Nano Ladder	Not applicable.

Seveso Directive

This product is not controlled under the Seveso Directive.

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air	:	Not listed
Industrial emissions (integrated pollution prevention and control) - Water	:	Not listed

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

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

SECTION 15: Regulatory information

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

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

Procedure used to derive the classification

Not classified.

Full text of abbreviated H statements

Not applicable.

Full text of classifications

Not applicable.

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