Conforms to US OSHA Hazard Communication 29CFR1910.1200

# **SAFETY DATA SHEET**



RNase Block, Part Number 300151

### Section 1. Identification

1.1 Product identifier		
Product name	:	RNase Block, Part Number 300151
Part no.	1	300151
Validation date	1	5/19/2022
1.2 Relevant identified uses of the substance or mixture and uses advised against		
Material uses	:	Analytical reagent. 1 ml (4000 U 40 U/μl) RNase Block 300151-51
1.3 Details of the supplier of the safety data sheet		
Supplier/Manufacturer		Agilent Technologies, Inc

Supplier/Manufacturer	: Agilent Technologies, Inc. 5301 Stevens Creek Blvd
	Santa Clara, CA 95051, USA 800-227-9770

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

# Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).	
Classification of the substance or mixture		
<mark>⊮</mark> 320	EYE IRRITATION - Category 2B	

2.2 GHS label elements	
Signal word	: Warning
Hazard statements	: H320 - Causes eye irritation.
Precautionary statements	
Prevention	: Not applicable.
Response	<ul> <li>         F305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.     </li> </ul>
Storage	: Not applicable.
Disposal	Not applicable.
2.3 Other hazards	
Hazards not otherwise classified	: None known.

# Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	%	CAS number
Glycerol	≥50 - ≤75	56-81-5

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

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# Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified 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 neo	<u>cessary first aid measures</u>
Eye contact	<ul> <li>Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.</li> </ul>
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	<ul> <li>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.</li> </ul>
Ingestion	: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### 4.2 Most important symptoms/effects, acute and delayed

Potential acute health effect	<u>xts</u>
Eye contact	: Causes eye irritation.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/symp	u <u>toms</u>
Eye contact	: Adverse symptoms may include the following: irritation watering redness
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
4.3 Indication of immediate	medical attention and special treatment needed, if necessary
Notes to physician	<ul> <li>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</li> </ul>
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may

be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

### See toxicological information (Section 11)

# Section 5. Fire-fighting measures

5.1 Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
5.2 Special hazards arising	from the substance or mixture
Specific hazards arising from the chemical	: In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide
5.3 Advice for firefighters	
Special protective actions for fire-fighters	<ul> <li>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.</li> </ul>
Special protective equipment for fire-fighters	: 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, pro	tective 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.	
For emergency responders	: If specialized 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	: 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		

# Methods for cleaning up : 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

### 7.1 Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the origina container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous Do not reuse container.			
Advice on general occupational hygiene	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.	ŧ		
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# Section 7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities	: 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. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

Recommendations Industrial sector specific solutions

- : Industrial applications, Professional applications.
- : Not available.

# Section 8. Exposure controls/personal protection

### 8.1 Control parameters

### **Occupational exposure limits**

Ingredient name	Exposure limits
Glycerol	OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust OSHA PEL (United States, 5/2018). TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust

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	2
Hygiene measures :	<ul> <li>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.</li> <li>Appropriate techniques should be used to remove potentially contaminated clothing.</li> <li>Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.</li> </ul>
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: chemical splash goggles.
Skin protection	

# Section 8. Exposure controls/personal 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

# Section 9. Physical and chemical properties and safety characteristics

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

<u>Appearance</u>		
Physical state	1	Liquid.
Color	1	Not available.
Odor	1	Not available.
Odor threshold	1	Not available.
рН	1	7.6
Melting point/freezing point	4	Not available.
Boiling point, initial boiling point, and boiling range	:	Not available.
Flash point	:	

	Closed cup			Open	cup	
Ingredient name	°C	°F	Method	°C	°F	Method
<b>Iℝ</b> <sup>*</sup> ,R <sup>*</sup> ) -1,4-Dimercaptobutane- 2,3-diol	>110	>230				
Glycerol				177	350.6	

#### **Evaporation rate**

Flammability

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# Lower and upper explosion limit/flammability limit

Vapor pressure

5		Vapor Pressure at 20°C			Vap	or pressu	re at 50°C
	Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
	water	23.8	3.2		92.258	12.3	
	Glycerol	0.000075	0.00001		0.0025	0.00033	

Relative vapor density Relative density Solubility Miscible with water Not available.Not available.

: Not available.

: Not applicable.

: Not available.

: Fasily soluble in the following materials: cold water and hot water.

: Yes.

# Section 9. Physical and chemical properties and safety characteristics

Partition coefficient: n- octanol/water	: Not applicable.					
Auto-ignition temperature	: Ingredient name	°C	°F	Method		
	Glycerol	370	698			
	4-(2-Hydroxyethyl)piperazin- 1-ylethanesulphonic acid	>400	>752	EU A.16		
Decomposition temperature	: Not available.	· · · ·		<b>t</b>		
Viscosity	: Not available.	Not available.				
Particle characteristics						
Median particle size	: Not applicable.					

# Section 10. Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: No specific data.
10.5 Incompatible materials	: May react or be incompatible with oxidizing materials.
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# Section 11. Toxicological information

### 11.1 Information on toxicological effects

Acu	te t	OYI	CITV
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Product/ingredient name	Result	Species	Dose	Exposure
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Irritation/Corrosion				

Result	Species	Score	Exposure	Observation
Eyes - Mild irritant	Rabbit	-	24 hours 500	-
Skin - Mild irritant	Rabbit	-	mg 24 hours 500	-
	Eyes - Mild irritant	Eyes - Mild irritant Rabbit	Eyes - Mild irritant Rabbit -	Eyes - Mild irritant     Rabbit     -     24 hours 500 mg

**Sensitization** 

Not available.

<u>Conclusion/Summary</u> Skin	: May cause skin sensitization.
Mutagenicity	· ·····
Conclusion/Summary	: Not available.
<b>Carcinogenicity</b>	
<b>Conclusion/Summary</b>	: Not available.
Reproductive toxicity	
Conclusion/Summary	: Not available.
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# Section 11. Toxicological information

Teratogenicity		N
Conclusion/Summary		Not available.
Specific target organ toxicit Not available.	<u>y (</u>	<u>single exposure)</u>
Specific target organ toxicit Not available.	<u>y (</u>	repeated exposure)
Aspiration hazard Not available.		
Information on the likely routes of exposure	:	Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects		
Eye contact	:	Causes eye irritation.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.
Symptoms related to the physical	<u>sic</u>	al, chemical and toxicological characteristics
Eye contact	:	Adverse symptoms may include the following: irritation watering redness
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.
Delayed and immediate effect	ts a	and also chronic effects from short and long term exposure
<u>Short term exposure</u>		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
<u>Long term exposure</u>		
Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.
Potential chronic health effe	ct	<u>8</u>
General	1	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Reproductive toxicity	1	No known significant effects or critical hazards.

### Numerical measures of toxicity

Acute toxicity estimates

# Section 11. Toxicological information

U					
Product/ingredient name	Oral (mg/ kg)	(mg/kg)	· · · · ·	(vapors)	Inhalation (dusts and mists) (mg/ I)
Glycerol	12600	N/A	N/A	N/A	N/A

# Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

### **12.3 Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
Glycerol	-1.76	-	low

### 12.4 Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

**12.5 Other adverse effects** : 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

# Section 13. Disposal considerations

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

DOT / TDG / Mexico / IMDG / : Not regulated. IATA

**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 : Not available. to IMO instruments

# Section 15. Regulatory information

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

.S. Federal regulations	: 7	rsca 8(a) CDR E	xempt/Partial exemption: Not determined
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: 1	Not listed	
Clean Air Act Section 602 Class I Substances	: 1	Not listed	
Clean Air Act Section 602 Class II Substances	: 1	Not listed	
DEA List I Chemicals (Precursor Chemicals)	: 1	Not listed	
DEA List II Chemicals (Essential Chemicals)	: 1	Not listed	
SARA 302/304 Composition/information	on in	aredients	
No products were found.		<u></u>	
SARA 304 RQ	: 1	Not applicable.	
<u>SARA 311/312</u>			
Classification	: 6	EYE IRRITATION	- Category 2B
Composition/information	on in	gredients	
Name		%	Classification
Siycerol		≥50 - ≤75	EYE IRRITATION - Category 2B

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# Section 15. Regulatory information

### **New York**

: None of the components are listed.

- **New Jersey**
- : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL
- Pennsylvania
- : The following components are listed: 1,2,3-PROPANETRIOL

### California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### **International regulations**

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

### **Montreal Protocol**

Not listed.

Stockholm Convention on Persistent Organic Pollutants Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

### **UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

### **Inventory list**

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: 🕅 components are active or exempted.
Viet Nam	: 🕅 components are listed or exempted.

# Section 16. Other information

### Procedure used to derive the classification

Classification		Justification		
		Calculation method		
History				
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Date of previous issue	: 09/13/2019			
Version	: 6			

# Section 16. Other information

Key to abbreviations	: ATE = Acute Toxicity Estimate
	BCF = Bioconcentration Factor
	GHS = Globally Harmonized System of Classification and Labelling of Chemicals
	IATA = International Air Transport Association
	IBC = Intermediate Bulk Container
	IMDG = International Maritime Dangerous Goods
	LogPow = logarithm of the octanol/water partition coefficient
	MARPOL = International Convention for the Prevention of Pollution From Ships, 1973
	as modified by the Protocol of 1978. ("Marpol" = marine pollution)
	N/A = Not available
	UN = United Nations
Vindiantan information t	hat has sharped from mentionally issued version

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

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