SAFETY DATA SHEET

Agilent Technologies

Universal Mouse Reference RNA, Part Number 740100

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

1.1 Product identifier

Product name : Universal Mouse Reference RNA, Part Number 740100

Part No. (Kit) : 740100

Part No. : RNase Free Water 740000-42
Universal Mouse Reference RNA 740100-41

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

Identified uses	
Analytical reagent.	
RNase Free Water	1.5 mL
Universal Mouse Reference RNA	2 x 1.8 mL (200 µg ppt in EtOH)

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 : RNase Free Water Mono-constituent substance
Universal Mouse Reference RNA Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Universal Mouse Reference RNA

H225 FLAMMABLE LIQUIDS - Category 2

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

Hazard pictograms :

SECTION 2: Hazards identification

Signal word	:	RNase Free Water Universal Mouse Reference RNA	No signal word. Danger
Hazard statements	:	RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. **GHS02** - Highly flammable liquid and vapour.
Precautionary statements			
Prevention	:	RNase Free Water Universal Mouse Reference RNA	Not applicable. P280 - Wear protective gloves. Wear eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
Response	:	RNase Free Water Universal Mouse Reference RNA	Not applicable. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Storage	:	RNase Free Water Universal Mouse Reference RNA	Not applicable. P235 - Keep cool.
Disposal	:	RNase Free Water Universal Mouse Reference RNA	Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	:	RNase Free Water Universal Mouse Reference RNA	Not applicable. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	RNase Free Water Universal Mouse Reference RNA	Not applicable. Not applicable.
Special packaging requirements			
Tactile warning of danger	:	RNase Free Water Universal Mouse Reference RNA	Not applicable. Not applicable.

2.3 Other hazards

Other hazards which do not result in classification	:	RNase Free Water Universal Mouse Reference RNA	None known. None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : RNase Free Water — Mono-constituent substance
Universal Mouse Reference RNA — Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
RNase Free Water Water	EC: 231-791-2 CAS: 7732-18-5	100	Not classified.	[A]
Universal Mouse Reference RNA Ethanol	EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≥50 - ≤75	Flam. Liq. 2, H225	[2]

SECTION 3: Composition/information on ingredients

			See Section 16 for the full text of the H statements declared above.	

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.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern
[A] Constituent
[B] Impurity
[C] Stabilising additive

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : RNase Free Water: 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.

Universal Mouse Reference RNA: 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. Get medical attention if irritation occurs.

Inhalation : RNase Free Water: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Universal Mouse Reference RNA: 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 : RNase Free Water: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Universal Mouse Reference RNA: 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.

Ingestion : RNase Free Water: 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.

Universal Mouse Reference RNA: Wash out mouth with water. Remove dentures if any. 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. 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

SECTION 4: First aid measures

			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.
Protection of first-aiders	:	RNase Free Water	No action shall be taken involving any personal risk or without suitable training.
		Universal Mouse Reference RNA	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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Inhalation	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Skin contact	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Ingestion	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	RNase Free Water	No specific data.
		Universal Mouse Reference RNA	No specific data.
Inhalation	:	RNase Free Water	No specific data.
		Universal Mouse Reference RNA	No specific data.
Skin contact	:	RNase Free Water	No specific data.
		Universal Mouse Reference RNA	No specific data.
Ingestion	:	RNase Free Water	No specific data.
		Universal Mouse Reference RNA	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	RNase Free Water	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Universal Mouse Reference RNA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	RNase Free Water	No specific treatment.
		Universal Mouse Reference RNA	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	RNase Free Water	Use an extinguishing agent suitable for the surrounding fire.
		Universal Mouse Reference RNA	Use dry chemical, CO_2, water spray (fog) or foam.
Unsuitable extinguishing media	:	RNase Free Water	None known.
		Universal Mouse Reference RNA	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

Hazards from the substance or mixture	: RNase Free Water	In a fire or if heated, a pressure increase will occur and the container may burst.
	Universal Mouse Reference RNA	Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
Hazardous combustion products	: RNase Free Water Universal Mouse Reference RNA	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide

5.3 Advice for firefighters

Special precautions for fire-fighters	: RNase Free Water	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.
	Universal Mouse Reference RNA	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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: RNase Free Water	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.
	Universal Mouse Reference RNA	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	: RNase Free Water	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.
	Universal Mouse Reference RNA	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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: RNase Free Water	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".
	Universal Mouse Reference RNA	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".

SECTION 6: Accidental release measures

6.2 Environmental precautions

RNase Free Water	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).
Universal Mouse Reference RNA	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

RNase Free Water	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.
Universal Mouse Reference RNA	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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

RNase Free Water	Put on appropriate personal protective equipment (see Section 8).
Universal Mouse Reference RNA	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

RNase Free Water	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.
Universal Mouse Reference RNA	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

SECTION 7: Handling and storage

Storage

: RNase Free Water — 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.

: Universal Mouse Reference RNA — Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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.

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
Universal Mouse Reference RNA P5c: Flammable liquids 2 and 3 not falling under P5a or P5b	5000	50000

7.3 Specific end use(s)

Recommendations

: RNase Free Water — Industrial applications, Professional applications.

: Universal Mouse Reference RNA — Industrial applications, Professional applications.

Industrial sector specific solutions

: RNase Free Water — Not applicable.

: Universal Mouse Reference RNA — Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Universal Mouse Reference RNA Ethanol	**EH40/2005 WELs (United Kingdom (UK), 12/2011).** TWA: 1000 ppm 8 hours. TWA: 1920 mg/m³ 8 hours.

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.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

SECTION 8: Exposure controls/personal protection

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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. 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	RNase Free Water Universal Mouse Reference RNA	Liquid. Liquid.
Colour	:	RNase Free Water Universal Mouse Reference RNA	Colourless. Not available.
Odour	:	RNase Free Water Universal Mouse Reference RNA	Odourless. Not available.

SECTION 9: Physical and chemical properties

Odour threshold	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Not available.
pH	:	RNase Free Water	7
		Universal Mouse Reference RNA	Not available.
Melting point/freezing point	:	RNase Free Water	0°C
		Universal Mouse Reference RNA	Not available.
Initial boiling point and boiling range	:	RNase Free Water	100°C
		Universal Mouse Reference RNA	Not available.
Flash point	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Closed cup: -18 to 23°C
Evaporation rate	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Not available.
Flammability (solid, gas)	:	RNase Free Water	Not applicable.
		Universal Mouse Reference RNA	Not applicable.
Upper/lower flammability or explosive limits	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Not available.
Vapour pressure	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Not available.
Vapour density	:	RNase Free Water	0.62 [Air = 1]
		Universal Mouse Reference RNA	Not available.
Relative density	:	RNase Free Water	1
		Universal Mouse Reference RNA	Not available.
Solubility(ies)	:	RNase Free Water	Easily soluble in the following materials: cold water and hot water.
		Universal Mouse Reference RNA	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	:	RNase Free Water	-1.38
		Universal Mouse Reference RNA	Not available.
Auto-ignition temperature	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Not available.
Decomposition temperature	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Not available.
Viscosity	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Not available.
Explosive properties	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Not available.
Oxidising properties	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	RNase Free Water	No specific test data related to reactivity available for this product or its ingredients.
		Universal Mouse Reference RNA	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	RNase Free Water	The product is stable.
		Universal Mouse Reference RNA	The product is stable.
10.3 Possibility of hazardous reactions	:	RNase Free Water	Under normal conditions of storage and use, hazardous reactions will not occur.
		Universal Mouse Reference RNA	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	RNase Free Water	No specific data.
		Universal Mouse Reference RNA	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
10.5 Incompatible materials	:	RNase Free Water	May react or be incompatible with oxidising materials.
		Universal Mouse Reference RNA	Reactive or incompatible with the following materials: oxidizing materials
10.6 Hazardous decomposition products	:	RNase Free Water	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		Universal Mouse Reference RNA	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.

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	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.

SECTION 11: Toxicological information

Ingestion	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Skin contact	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Eye contact	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	:	RNase Free Water	No specific data.
		Universal Mouse Reference RNA	No specific data.
Ingestion	:	RNase Free Water	No specific data.
		Universal Mouse Reference RNA	No specific data.
Skin contact	:	RNase Free Water	No specific data.
		Universal Mouse Reference RNA	No specific data.
Eye contact	:	RNase Free Water	No specific data.
		Universal Mouse Reference RNA	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	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Carcinogenicity	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Mutagenicity	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Teratogenicity	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Developmental effects	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Fertility effects	:	RNase Free Water	No known significant effects or critical hazards.
		Universal Mouse Reference RNA	No known significant effects or critical hazards.
Other information	:	RNase Free Water	Not available.
		Universal Mouse Reference RNA	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
RNase Free Water Water	-	100 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
RNase Free Water Water	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
RNase Free Water Water	-1.38	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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 : The classification of the product may meet the criteria for a hazardous waste.

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. 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Additional information : **Special provisions**
251, 340

Remarks
Excepted Quantity

	ADR/RID	IMDG	IATA
14.1 UN number	UN3316	UN3316	UN3316
14.2 UN proper shipping name	CHEMICAL KIT	CHEMICAL KIT	Chemical kit
14.3 Transport hazard class(es)	9 	9 	9 
14.4 Packing group	II	II	II
14.5 Environmental hazards	No.	No.	No.
Additional information	**Hazard identification number** 90 **Limited quantity** See SP 251 **Special provisions** 251, 340 **Tunnel code** (E)	**Emergency schedules (EmS)** F-A, _S-P_ **Special provisions** 251, 340	**Passenger and Cargo Aircraft** Quantity limitation: 10 kg Packaging instructions: 960 **Cargo Aircraft Only** Quantity limitation: 10 kg Packaging instructions: 960 **Limited Quantities - Passenger Aircraft** Quantity limitation: 1 kg Packaging instructions: Y960 **Special provisions** A44, A163 **Remarks** Excepted Quantity

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 Annex II of Marpol 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

Annex XIV

None of the components are listed.

Substances of very high concern

SECTION 15: Regulatory information

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 : RNase Free Water — Not applicable.
Universal Mouse Reference RNA — Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
Universal Mouse Reference RNA P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

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.

International lists

National inventory

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Japan : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): Not determined.

Malaysia : Not determined.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Turkey : Not determined.

United States : All components are listed or exempted.

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

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]

Classification	Justification
Universal Mouse Reference RNA Flam. Liq. 2, H225	On basis of test data

Full text of abbreviated H statements

Universal Mouse Reference RNA H225	Highly flammable liquid and vapour.

Full text of classifications [CLP/GHS]

Universal Mouse Reference RNA Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2

Date of issue/ Date of revision : 30/09/2016

Date of previous issue : No previous validation.

Version : 1

Notice to reader

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