



## Section 2. Hazards identification

<b>Hazard statements</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. H225 - Highly flammable liquid and vapor. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness.
<b>Precautionary statements</b>		
<b>Prevention</b>	: RNase Free Water Universal Mouse Reference RNA	Not applicable. P280 - 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 or lighting equipment.
<b>Response</b>	: RNase Free Water Universal Mouse Reference RNA	Not applicable. P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
<b>Storage</b>	: RNase Free Water Universal Mouse Reference RNA	Not applicable. P403 + P235 - Store in a well-ventilated place. Keep cool.
<b>Disposal</b>	: 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.
<b>Supplemental label elements</b>	: RNase Free Water Universal Mouse Reference RNA	None known. None known.
<b>2.3 Other hazards</b>		
<b>Hazards not otherwise classified</b>	: RNase Free Water Universal Mouse Reference RNA	None known. None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: RNase Free Water Universal Mouse Reference RNA	Substance Mixture
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Ingredient name	%	CAS number
RNase Free Water Water	100	7732-18-5
Universal Mouse Reference RNA Ethanol	≥50 - ≤75	64-17-5

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

**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.**

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<b>Eye contact</b>	: RNase Free Water  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. Get medical attention if irritation occurs. 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.
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## Section 4. First aid measures

<b>Inhalation</b>	: RNase Free Water  Universal Mouse Reference RNA	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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.
<b>Skin contact</b>	: RNase Free Water  Universal Mouse Reference RNA	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. 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.
<b>Ingestion</b>	: RNase Free Water  Universal Mouse Reference RNA	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. 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 necessary, call a poison center or physician. 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 effects

<b>Eye contact</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. Causes serious eye irritation.
<b>Inhalation</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

## Section 4. First aid measures

<b>Skin contact</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. Can cause central nervous system (CNS) depression.
<b><u>Over-exposure signs/symptoms</u></b>		
<b>Eye contact</b>	: RNase Free Water Universal Mouse Reference RNA	No specific data. Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: RNase Free Water Universal Mouse Reference RNA	No specific data. Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
<b>Skin contact</b>	: RNase Free Water Universal Mouse Reference RNA	No specific data. No specific data.
<b>Ingestion</b>	: RNase Free Water Universal Mouse Reference RNA	No specific data. No specific data.

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

<b>Notes to physician</b>	: RNase Free Water  Universal Mouse Reference RNA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: RNase Free Water Universal Mouse Reference RNA	No specific treatment. No specific treatment.
<b>Protection of first-aiders</b>	: RNase Free Water  Universal Mouse Reference RNA	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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**

<b>Suitable extinguishing media</b>	: RNase Free Water  Universal Mouse Reference RNA	Use an extinguishing agent suitable for the surrounding fire. Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
<b>Unsuitable extinguishing media</b>	: RNase Free Water Universal Mouse Reference RNA	None known. Do not use water jet.

### **5.2 Special hazards arising from the substance or mixture**

## Section 5. Fire-fighting measures

<b>Specific hazards arising from the chemical</b>	: RNase Free Water  Universal Mouse Reference RNA	In a fire or if heated, a pressure increase will occur and the container may burst. Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
<b>Hazardous thermal decomposition products</b>	: RNase Free Water  Universal Mouse Reference RNA	No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide
<b>5.3 Advice for firefighters</b>		
<b>Special protective actions for fire-fighters</b>	: RNase Free Water  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. 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.
<b>Special protective equipment for fire-fighters</b>	: RNase Free Water  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. 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

<b>For non-emergency personnel</b>	: RNase Free Water  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 spilled material. Put on appropriate personal protective equipment. 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: RNase Free Water  Universal Mouse Reference RNA	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". 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

## Section 6. Accidental release measures

the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: RNase Free Water

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).

Universal Mouse Reference RNA

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

: 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.

## 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 vapor 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

## Section 7. Handling and storage

### 7.2 Conditions for safe storage, including any incompatibilities

: RNase Free Water

Universal Mouse Reference RNA

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.

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.

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. Store locked up. 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 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

: RNase Free Water  
Universal Mouse Reference RNA

Industrial applications, Professional applications.  
Industrial applications, Professional applications.

#### Industrial sector specific solutions

:  RNase Free Water  
Universal Mouse Reference RNA

Not available.  
Not available.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<p><input checked="" type="checkbox"/> RNase Free Water Water</p> <p>Universal Mouse Reference RNA Ethanol</p>	<p>None.</p> <p><b>ACGIH TLV (United States, 3/2020).</b> STEL: 1000 ppm 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 1000 ppm 8 hours. TWA: 1900 mg/m<sup>3</sup> 8 hours.</p> <p><b>NIOSH REL (United States, 10/2016).</b> TWA: 1000 ppm 10 hours. TWA: 1900 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 5/2018).</b> TWA: 1000 ppm 8 hours. TWA: 1900 mg/m<sup>3</sup> 8 hours.</p>

## Section 8. Exposure controls/personal protection

### 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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### Environmental exposure controls

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

### Individual protection measures

#### Hygiene measures

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

#### Eye/face protection

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

#### 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.

##### 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

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	: RNase Free Water Universal Mouse Reference RNA	Liquid. Liquid.
Color	: RNase Free Water Universal Mouse Reference RNA	Colorless. Not available.
Odor	: RNase Free Water Universal Mouse Reference RNA	Odorless. Not available.
Odor threshold	: RNase Free Water Universal Mouse Reference RNA	Not available. Not available.
pH	:	



## Section 9. Physical and chemical properties

	RNase Free Water	7
	Universal Mouse Reference RNA	Not available.
<b>Melting point</b>	: RNase Free Water	0°C (32°F)
	Universal Mouse Reference RNA	Not available.
<b>Boiling point</b>	: RNase Free Water	100°C (212°F)
	Universal Mouse Reference RNA	Not available.
<b>Flash point</b>	: RNase Free Water	Not applicable.
	Universal Mouse Reference RNA	Closed cup: -18 to 23°C (-0.4 to 73.4°F)
<b>Evaporation rate</b>	: RNase Free Water	Not available.
	Universal Mouse Reference RNA	Not available.
<b>Flammability (solid, gas)</b>	: RNase Free Water	Not applicable.
	Universal Mouse Reference RNA	Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: RNase Free Water	Not available.
	Universal Mouse Reference RNA	Not available.
<b>Vapor pressure</b>	: RNase Free Water	3.2 kPa (23.8 mm Hg) [room temperature]
	Universal Mouse Reference RNA	Not available.
<b>Vapor density</b>	: RNase Free Water	0.62 [Air = 1]
	Universal Mouse Reference RNA	Not available.
<b>Relative density</b>	: RNase Free Water	1
	Universal Mouse Reference RNA	Not available.
<b>Solubility</b>	: 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.
<b>Partition coefficient: n-octanol/water</b>	: RNase Free Water	-1.38
	Universal Mouse Reference RNA	Not available.
<b>Auto-ignition temperature</b>	: RNase Free Water	Not applicable.
	Universal Mouse Reference RNA	Not available.
<b>Decomposition temperature</b>	: RNase Free Water	Not available.
	Universal Mouse Reference RNA	Not available.
<b>Viscosity</b>	: RNase Free Water	Not available.
	Universal Mouse Reference RNA	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: 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.
<b>10.2 Chemical stability</b>	: RNase Free Water	The product is stable.
	Universal Mouse Reference RNA	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: 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.
<b>10.4 Conditions to avoid</b>	: RNase Free Water	No specific data.
	Universal Mouse Reference RNA	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

## Section 10. Stability and reactivity

- 10.5 Incompatible materials** : RNase Free Water  
 Universal Mouse Reference RNA  
 May react or be incompatible with oxidizing materials.  
 Reactive or incompatible with the following materials:  
 oxidizing materials
- 10.6 Hazardous decomposition products** : RNase Free Water  
 Universal Mouse Reference RNA  
 Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
 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

Product/ingredient name	Result	Species	Dose	Exposure
Universal Mouse Reference RNA Ethanol	LC50 Inhalation Vapor LD50 Oral	Rat Rat	124700 mg/m <sup>3</sup> 7 g/kg	4 hours -

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Universal Mouse Reference RNA Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	100 uL	-

#### Sensitization

Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

#### Classification

Product/ingredient name	OSHA	IARC	NTP
Universal Mouse Reference RNA Ethanol	-	1	-

#### Reproductive toxicity

**Conclusion/Summary** : Not available.

#### Teratogenicity

**Conclusion/Summary** : Not available.

#### Specific target organ toxicity (single exposure)

## Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Universal Mouse Reference RNA Ethanol	Category 3	-	Narcotic effects

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

<b>Information on the likely routes of exposure</b>	: RNase Free Water Universal Mouse Reference RNA	Not available. Routes of entry anticipated: Oral, Dermal, Inhalation.
<b>Potential acute health effects</b>		
<b>Eye contact</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. Causes serious eye irritation.
<b>Inhalation</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
<b>Skin contact</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Ingestion</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. Can cause central nervous system (CNS) depression.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: RNase Free Water Universal Mouse Reference RNA	No specific data. Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: RNase Free Water Universal Mouse Reference RNA	No specific data. Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
<b>Skin contact</b>	: RNase Free Water Universal Mouse Reference RNA	No specific data. No specific data.
<b>Ingestion</b>	: RNase Free Water Universal Mouse Reference RNA	No specific data. No specific data.

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

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

## Section 11. Toxicological information

<b>General</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: <input checked="" type="checkbox"/> RNase Free Water Universal Mouse Reference RNA	No known significant effects or critical hazards. No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
<input checked="" type="checkbox"/> Universal Mouse Reference RNA Ethanol	7000	N/A	N/A	124.7	N/A

<b>Other information</b>	: RNase Free Water Universal Mouse Reference RNA	Not available. Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.
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## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> Universal Mouse Reference RNA Ethanol	Acute EC50 3306 mg/l Marine water Acute EC50 1074 mg/l Fresh water Acute LC50 5680 mg/l Fresh water  Acute LC50 11000000 µg/l Marine water Chronic NOEC 4.995 mg/l Marine water Chronic NOEC 100 ul/L Fresh water	Algae - Ulva pertusa Crustaceans - Cypris subglobosa Daphnia - Daphnia magna - Neonate Fish - Alburnus alburnus Algae - Ulva pertusa Daphnia - Daphnia magna - Neonate	96 hours 48 hours 48 hours  96 hours 96 hours 21 days

### 12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
RNase Free Water Water	-	-	Readily
Universal Mouse Reference RNA Ethanol	-	-	Readily

### 12.3 Bioaccumulative potential

## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
RNase Free Water Water	-1.38	-	low
Universal Mouse Reference RNA Ethanol	-0.35	0.5	low

### 12.4 Mobility in soil

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

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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

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

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

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

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1170	UN1170	UN1170	UN1170	UN1170
UN proper shipping name	Ethanol solutions	ETHANOL SOLUTION	ETANOL EN SOLUCION	ETHANOL SOLUTION	Ethanol solution
Transport hazard class(es)	3 	3 	3 	3 	3 

## Section 14. Transport information

<b>Packing group</b>	II	II	II	II	II
<b>Environmental hazards</b>	No.	No.	No.	No.	No.

### Additional information

**Remarks:** Excepted Quantity

- DOT Classification** : **Limited quantity** Yes.  
**Packaging instruction** Exceptions: 4b, 150. Non-bulk: 202. Bulk: 242.  
**Quantity limitation** Passenger aircraft/rail: 5 L. Cargo aircraft: 60 L.  
**Special provisions** 24, IB2, T4, TP1
- TDG Classification** : **Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).**  
**Explosive Limit and Limited Quantity Index 1**  
**Passenger Carrying Road or Rail Index 5**  
**Special provisions** 150
- Mexico Classification** : **Special provisions** 144
- IMDG** : **Emergency schedules** F-E, S-D  
**Special provisions** 144
- IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 5 L. Packaging instructions: 353. Cargo Aircraft Only: 60 L. Packaging instructions: 364. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y341.  
**Special provisions** A3, A58, A180
- 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 to IMO instruments** : Not available.

## Section 15. Regulatory information

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

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**Clean Water Act (CWA) 311:** Edetic acid

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

## Section 15. Regulatory information

**Classification** :  **N**ase Free Water Universal Mouse Reference RNA Not applicable.  
 FLAMMABLE LIQUIDS - Category 2  
 EYE IRRITATION - Category 2A  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

### Composition/information on ingredients

Name	%	Classification
<input checked="" type="checkbox"/> <b>U</b> niversal Mouse Reference RNA Ethanol	≥50 - ≤75	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant

### State regulations

**Massachusetts** : The following components are listed: ETHYL ALCOHOL; DENATURED ALCOHOL  
**New York** : None of the components are listed.  
**New Jersey** : The following components are listed: ETHYL ALCOHOL; ALCOHOL  
**Pennsylvania** : The following components are listed: DENATURED ALCOHOL; ETHANOL  
**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 (ENCS)**: All components are listed or exempted.  
**Japan inventory (ISHL)**: All components are listed or exempted.  
**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.  
**Thailand** : Not determined.  
**Turkey** : Not determined.  
**United States** :  All components are active or exempted.  
**Viet Nam** :  All components are listed or exempted.

## Section 16. Other information

### History

<b>Date of issue</b>	: 05/21/2021
<b>Date of previous issue</b>	: 11/18/2018
<b>Version</b>	: 7
<b>Key to abbreviations</b>	: 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

### Procedure used to derive the classification

Classification	Justification
 <b>Universal Mouse Reference RNA</b> FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	On basis of test data Calculation method Calculation method

 Indicates information that has changed from previously issued version.

### Notice to reader

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