

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

**Identification of the substance or mixture**

**Product code** AM7030  
**Product name** RNAlater-ICE

**Company/undertaking identification**

**Manufacturer/Supplier**

Thermo Fisher Scientific Baltics UAB  
V.Graiciuno 8  
LT-02241 Vilnius  
Lithuania  
Tel.: +370 5 2602131  
Fax.: +370 5 2602142

**Emergency telephone number for China**

For Chemical Emergency (Spill, Leak, Fire, Exposure or Accident), call  
CHEMTREC Domestic North America: 1-800-424-9300 (24 hours)  
CHEMTREC International: 1-703-527-3887 (collect calls accepted)

**Country specific Emergency  
Number (if available):**

**For Research Use Only. Not for use in diagnostic procedures.**

SECTION 2: Hazards identification

**GHS - Classification**

**Signal Word**  
DANGER

**Hazard pictograms**



**Health hazards**

Specific target organ systemic toxicity (single exposure)

Category 2

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## Physical hazards

GHS Physical Hazard 1	Flammable liquids
GHS Physical Hazard Category Number	Category 2

## Environmental hazards

### Hazard Statements

H225 - Highly flammable liquid and vapor  
H371 - May cause damage to organs if inhaled

### Precautionary Statements

#### Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P264 - Wash hands thoroughly after handling  
P233 - Keep container tightly closed

#### Response

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor

#### Storage

P403 + P235 - Store in a well-ventilated place. Keep cool

#### Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

### Other hazards

Not Applicable

### HMIS

Health	4 * Chronic Hazard
Flammability	3
Reactivity	0

## SECTION 3: Composition/information on ingredients

Component	CAS-No	EINECS-No	Weight %
Methyl alcohol 67-56-1 ( 1 - 5 )	67-56-1	200-659-6	1 - 5
Isopropyl alcohol 67-63-0 ( 1 - 5 )	67-63-0	200-661-7	1 - 5
Ethyl alcohol 64-17-5 ( 60 - 100 )	64-17-5	200-578-6	60 - 100

We recommend handling all chemicals with caution.

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## SECTION 4: First aid measures

<b>Skin contact</b>	Wash off immediately with plenty of water. Take off contaminated clothing.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person.
<b>inhalation</b>	Remove to fresh air.
<b>Most important symptoms and effects, both acute and delayed</b>	
H225 - Highly flammable liquid and vapor, H371 - May cause damage to organs if inhaled	
<b>Notes to Physician</b>	Treat symptomatically.

## SECTION 5: Firefighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	Dry chemical. Alcohol resistant foam. Water spray. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	No information available.

**Special hazards arising from the substance or mixture** Not known.

**Advice for fire-fighters** Wear self-contained breathing apparatus and protective suit.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid breathing vapors or mists. Use non-sparking tools and equipment. Ensure adequate ventilation. Use personal protection equipment. See Section 8 for more detail.

### Environmental precautions

No special environmental precautions required.

### Methods and material for containment and cleaning up

Small spillage: Allow to evaporate. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Ventilate the area.

Large spillage: Dike for later disposal and cover with wet sand or earth. Immediately contact emergency personnel.

### Reference to other sections

See section 8 for more information.

## SECTION 7: Handling and storage

### Precautions for safe handling

Always wear recommended Personal Protective Equipment. Avoid contact with eyes, skin and clothing. Do not breathe vapors. When using do not smoke, eat or drink. Ground and bond containers when transferring material. See Section 8 for more detail.

### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep in properly labeled containers. Store in accordance with local regulations.

### Specific end use(s)

For research use only.

## SECTION 8: Exposure controls/personal protection

### Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Methyl alcohol	200 ppm 260 mg/m <sup>3</sup>	None	200 ppm	250 ppm
Isopropyl alcohol	400 ppm 980 mg/m <sup>3</sup>	None	200 ppm	400 ppm
Ethyl alcohol	1000 ppm 1900 mg/m <sup>3</sup>	None	None	1000 ppm

**Engineering measures** Ensure adequate ventilation, especially in confined areas

### Exposure controls

#### Personal Protective Equipment

**Respiratory protection** In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

**Hand protection** Glove material: Nitrile rubber with thickness (mm) :5 Break through time (hours) :<1  
Recommended glove type has not been tested for use with product Information is based on professional Knowledge

**Eye protection** Tight sealing safety goggles

**Skin and Body Protection** Wear laboratory coat for body protection

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

#### Environmental exposure controls

No special environmental precautions required.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance</b>	liquid	
<b>Odor</b>	Mixture has not been tested	
<b>Odor Threshold</b>	Mixture has not been tested	
<b>pH</b>	Mixture has not been tested	
<b>Melting point / melting range</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Boiling point / boiling range</b>	°C >35	°F >95
<b>Flash point</b>	°C <23	°F <73.4
<b>Autoignition Temperature</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Decomposition temperature</b>	°C Mixture has not been tested	°F Mixture has not been tested
<b>Evaporation rate</b>	No data available	
<b>Flammability (solid, gas)</b>	Not Applicable	
<b>Upper explosion limit</b>	Mixture has not been tested	
<b>Lower explosion limit</b>	Mixture has not been tested	
<b>Vapor Pressure</b>	Mixture has not been tested	
<b>Relative density</b>	Mixture has not been tested	
<b>Specific gravity</b>	No data available	
<b>Solubility</b>	Completely miscible with water	
<b>Partition coefficient: n-octanol/water</b>	No data available	
<b>Viscosity</b>	Mixture has not been tested	
<b>Explosive properties</b>	Mixture has not been tested	
<b>Oxidizing properties</b>	Mixture has not been tested	
<b>Other information</b>	No data available	

## SECTION 10: Stability and reactivity

<b>Reactivity</b>	None known.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous reaction has not been reported.
<b>Conditions to avoid</b>	High temperature. Proximity to sources of ignition.
<b>Incompatible materials</b>	Oxidizing agents. Acids. Bases.
<b>Hazardous decomposition products</b>	No known hazardous decomposition products.

## SECTION 11: Toxicological information

### Information on toxicological effects

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Methyl alcohol	= 6200 mg/kg (Rat)	No data available	=64000ppm(Rat) =22500ppm(Rat)
Isopropyl alcohol	4396 mg/kg Oral LD50	No data available	=72600mg/m <sup>3</sup> (Rat)
Ethyl alcohol	= 7060 mg/kg (Rat)	No data available	=124.7mg/L(Rat)

### Principal Routes of Exposure

<b>Irritation</b>	Conclusive but not sufficient for classification
<b>Corrosivity</b>	Conclusive but not sufficient for classification
<b>Sensitization</b>	Conclusive but not sufficient for classification
<b>STOT - Single Exposure</b>	Conclusive but not sufficient for classification
<b>STOT - Repeated Exposure</b>	Conclusive but not sufficient for classification
<b>Carcinogenicity</b>	Conclusive but not sufficient for classification
<b>Mutagenicity</b>	Conclusive but not sufficient for classification
<b>Reproductive toxicity</b>	Conclusive but not sufficient for classification
<b>Aspiration hazard</b>	Conclusive but not sufficient for classification

## SECTION 12: Ecological information

### Toxicity

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
<b>Methyl alcohol</b>	No data available	No data available	No data available	No data available	logPow-0.77
<b>Isopropyl alcohol</b>	Desmodesmus subspicatus EC50>1000 mg/L (96 h) Desmodesmus subspicatus EC50>1000 mg/L (72 h)	Daphnia magna EC50=13299 mg/L (48 h)	No data available	No data available	logPow0.05
<b>Ethyl alcohol</b>	No data available	Daphnia magna EC50=10800 mg/L (24 h) Daphnia magna EC50=2 mg/L (48 h) Daphnia magna LC509268 - 14221 mg/L (48 h)	No data available	No data available	logPow-0.32

**Persistence and degradability** No information available.

**Bioaccumulative potential** No information available.

### Results of PBT and vPvB assessment

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

**Other adverse effects** No information available.

## SECTION 13: Disposal considerations

### Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

## SECTION 14: Transport information

### IATA / ADR / DOT-US / IMDG

Classified as dangerous in the meaning of transport regulations.

<b>UN number</b>	1170
<b>UN proper shipping name</b>	Ethanol solution
<b>Transport hazard class(es)</b>	3
<b>Packing group</b>	II
<b>Environmental hazards</b>	Not Hazardous
<b>Special precautions for user</b>	Not Applicable

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not Applicable.

## SECTION 15: Regulatory information

Component	US TSCA
Methyl alcohol 67-56-1 ( 1 - 5 )	Listed
Isopropyl alcohol 67-63-0 ( 1 - 5 )	Listed
Ethyl alcohol 64-17-5 ( 60 - 100 )	Listed

**US Federal Regulations****SARA 313**

This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackage, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers:.

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight %</u>	<u>SARA 313 - Threshold Values</u>
Methyl alcohol	67-56-1	1 - 5	1.0
Isopropyl alcohol	67-63-0	1 - 5	1.0

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product contains the following HAPs:.

<u>Component</u>	<u>CAS-No</u>	<u>Weight %</u>	<u>HAPS data</u>
Methyl alcohol 67-56-1 ( 1 - 5 )	67-56-1	1 - 5	Present

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals.

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight %</u>	<u>Category</u>
Methyl alcohol	67-56-1	1 - 5	Developmental
Ethyl alcohol	64-17-5	60 - 100	Carcinogen Developmental

**WHMIS Hazard Class**

B2 - Flammable liquid



This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

## SECTION 16: Other information

<b>Reason for revision</b>	SDS sections updated.
<b>Revision number</b>	7
<b>Revision date</b>	14-Apr-2017

For Research Use Only. Not for use in diagnostic procedures.

**References**

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>

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- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE"

**End of Safety Data Sheet**