

1. Identification of the substance/mixture and of the company/undertaking

Identification of the substance/preparation

Product code F7022
Product name RNAlater

Company/Undertaking Identification

Life Technologies
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LIFE TECHNOLOGIES LIMITED
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PAISLEY, PA4 9RF
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44-141 814-6100

24 hour Emergency Response:

866-536-0631
301-431-8585
Outside of the U.S. ++1-301-431-8585

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

2. Hazards identification

In accordance with local and national regulations,

The product is classified and labelled in accordance with Directive 1999/45/EC. REGULATION (EC) No 1272/2008
Classification according to EU Directives 67/548/EEC or 1999/45/EC.

GHS - Classification

Signal word

Warning



Health hazard

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Specific target organ systemic toxicity (single exposure)	Category 3

Revision Date: 29-Oct-2013
Product code F7022

Page 1 / 6
Product name RNAlater

Physical hazards

not hazardous

Hazard statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

Precautionary statements

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

P305 + 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/attention

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P264 - Wash hands thoroughly after handling

European Union



EU Specific Hazard Statements

R-phrase(s)

R36/37/38 - Irritating to eyes, respiratory system and skin.

S-phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S24/25 - Avoid contact with skin and eyes

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Principle Routes of Exposure/

Potential Health effects

Eyes	Irritating to eyes.
Skin	Irritating to skin.
Inhalation	Irritating to respiratory system.
Ingestion	May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Specific effects

Carcinogenic effects	none
Mutagenic effects	none
Reproductive toxicity	none
Sensitisation	none

Target Organ Effects	None under normal use conditions
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3. Composition/information on ingredients

Chemical Name	CAS-No.	EINECS-No.	Weight percent
Ammonium sulfate	7783-20-2	231-984-1	30-60

We recommend handling all chemicals with caution.

4. FIRST AID MEASURES

Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Ingestion	Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.
Notes to physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water spray. Carbon dioxide (CO ₂). Foam. Dry chemical.
Special protective equipment for firefighters	Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.
Methods for cleaning up	Soak up with inert absorbent material.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

See Section 12 for additional information.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing. Wear personal protective equipment.
Storage	Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

8. Exposure controls/personal protection

Exposure limits

Chemical Name	EU OEL (TWA)	EU OEL (STEL)	EU Skin Notation
Ammonium sulfate 7783-20-2	None	None	None

Chemical Name	Austria	Belgium (TWA)	Denmark (TWA)	Finland OEL (TWA)
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Ammonium sulfate 7783-20-2	None	None	None	None
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Chemical Name	France OEL (VME)	Germany OEL (TWA)	Ireland (TWA)	Italy OEL (TWA)
Ammonium sulfate 7783-20-2	None	None	None	None

Chemical Name	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Netherlands OEL (MAC)	Spain OEL (TWA)	United Kingdom
Ammonium sulfate 7783-20-2	none	None	None	None

Chemical Name	European Union	United Kingdom	France OEL (VME)	Germany OEL (TWA)
Ammonium sulfate 7783-20-2	None	None	None	None

Chemical Name	Italy OEL (TWA)	Portugal	Netherlands OEL (MAC)	Finland OEL (TWA)
Ammonium sulfate 7783-20-2	None	None	None	None

Chemical Name	Austria	Denmark	Poland	Switzerland
Ammonium sulfate 7783-20-2	None	None	None	None

Chemical Name	Ireland	Norway	Spain OEL (TWA)
Ammonium sulfate 7783-20-2	None	None	None

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection

Impervious gloves.

Eye protection

Safety glasses with side-shields.

Skin and body protection

Lightweight protective clothing.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form

liquid

Appearance

No information available

Odour

No information available

Boiling Point/Range

°C No data available

°F No data available

Melting point/range

°C No data available

°F No data available

Flash point

°C No data available

°F No data available

Autoignition temperature oxidising properties

°C No data available

°F No data available

No information available

Water solubility soluble

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions.
Materials to avoid No information available
Hazardous decomposition products No information available
polymerisation None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

No toxicology information is available

Chemical Name	LD50 (oral,rat/mouse)	LD50 (dermal,rat/rabbit)	LC50 (inhalation,rat/mouse)
Ammonium sulfate	= 2000 mg/kg (Rat)	No data available	No data available

Principle Routes of Exposure/ Potential Health effects

Eyes Irritating to eyes.
Skin Irritating to skin.
Inhalation Irritating to respiratory system.
Ingestion May be harmful if swallowed Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Carcinogenic effects none
Mutagenic effects none
Reproductive toxicity none
Sensitisation none

Target Organ Effects None under normal use conditions

12. ECOLOGICAL INFORMATION

Ecotoxicity effects No information available.
Mobility No information available.
Biodegradation No information available.
Bioaccumulation No information available

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
Ammonium sulfate 7783-20-2		Daphnia magna LC50=14 mg/L (48 h) Daphnia magna EC50=423 mg/L (24 h)			logPow-5.1

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

IATA

Proper shipping name Not classified as dangerous in the meaning of transport regulations.
Hazard class None
Subsidiary Class None
Packing group None
UN-No none

15. Regulatory information

International Inventories

Chemical Name	EINECS	ELINCS	ENCS	PICCS
Ammonium sulfate	Listed	-	Listed	Listed

Chemical Name	AICS	KECL	DSL	NDSL
Ammonium sulfate	Listed	Listed	Listed	-

16. OTHER INFORMATION

Reason for Revision (M)SDS sections updated

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

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 MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

End of Safety Data Sheet