



RS-I [10x] Concentrate

Safety Data Sheet

According to Regulation (EC) No. 1907/2006

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product name:	AQIX [®] RS-I [10x] Concentrate
Use/description of product:	Concentrated buffered electrolyte solution for the preservation and perfusion of isolated mammalian cells, tissue or organs. For Research Use Only. Requires 10-fold dilution before use.
Company name:	Aqix Limited Imperial College Incubator London SW7 2AZ UK
Telephone:	020 7193 8555
Fax:	020 7594 1333
Emergency Telephone Number:	020 7193 8555
(Office hours only. Mon-Fri 9am-5pm)	
Email:	info@aqix.com

2. HAZARDS IDENTIFICATION

The preparation is not classified as dangerous under the Dangerous Preparations Directive 1999/45/EC.

Please Note: The chemical, physical, toxicological and eco-toxicological properties have not been fully investigated. In the absence of confirmatory data it is assumed the preparation is irritating to eyes, respiratory system and skin and to be harmful if swallowed.

Any hazard classification for specific component ingredients of AQIX[®] RS-I [10x] Concentrate that pose a risk to man or the environment under Dangerous Substances Directive 67/548/EEC are shown in Section 3.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients		Grade	Hazard Classification	Approx % Weight by Volume
Ionic:	Sodium Chloride	(Ph.Eur/USP)	---	~6.5%
	Potassium Chloride	(Ph.Eur/USP)	---	<0.5%
	Calcium Chloride	(Ph.Eur)	Xi, R36	<0.2%
Buffer:	Magnesium Chloride	(Ph.Eur)	---	<0.1%
	BES (Good's buffer).	---	Xi, R36/37/38	~1.0%
Amino acids:	L-Aspartic Acid	(Ph.Eur)	---	<0.1%
	L-Glutamic Acid	(Ph.Eur)	---	<0.1%
	L-Glutamine	(USP)	---	<0.1%

Substrates:	Glucose	(Ph.Eur/USP)	---	~2.0%
	Glycerol	(Ph.Eur/USP)	---	<0.1%
	Choline Chloride	---	Xi, R36/37/38	<0.1%
	Carnitine	---	Xi, R36/37/38	<0.1%
Co-Factors:	Thiamine Pyrophosphate	---	---	<0.1%
	Insulin	(Ph.Eur/USP)	---	<0.1%
Excipients:	Sterile Water for Injection	(Ph.Eur)	---	~90%

4. FIRST AID MEASURES

General advice

Show this safety data sheet to the physician in attendance.

In case of inhalation

Remove to fresh air. If symptoms persist consult a physician.

In case of skin contact

Wash off with soap and plenty of water. If symptoms persist consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes. If symptoms persist consult a physician.

If swallowed

Rinse mouth with water. Never give anything by mouth to an unconscious person. If symptoms persist consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Ensure adequate ventilation. Avoid breathing vapors, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and clean affected area with soap and water.

Keep in suitable, closed containers for disposal according to the applicable regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Normal measures for preventive fire protection.

Conditions for safe storage

Store between 2°C and 8°C under dark conditions.

Special Precautions

Protect from freezing, light, and extreme heat.

Preparation for use

AQIX[®] RS-I [10x] Concentrate required 10-fold dilution with Highly Purified Water and the addition of 0.21% w/v Sodium Bicarbonate before use. Refer to the AQIX RS-I 'Instructions for Use' leaflet for detailed information on reconstitution.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Respiratory protection

Respiratory protection is not required.

Where protection is desired, use respirators and components tested and approved under appropriate government

standards such as NIOSH (US) or CEN (EU).

Hand protection

For prolonged or repeated contact use protective gloves.

Eye protection

Safety glasses with side-shields.

Skin and body protection

Choose body protection according to the amount and concentration of the preparation in the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form: Liquid
Colour: Clear, Colourless.
Odour: Odourless

Safety data

pH 3.2-4.2 @ 20°C
Boiling point No data available
Freezing Point No data available
Flash point None anticipated for this aqueous product.
Ignition temperature None anticipated for this aqueous product.
Lower explosion limit None anticipated for this aqueous product.
Upper explosion limit None anticipated for this aqueous product.
Water solubility Aqueous solution
Viscosity Non-viscous
Miscibility Miscible with water
Density 1.0553 g/mL
Osmolality 230-240 mOsmo/Kg (based on a 1/10 dilution of 10x Concentrate)
Conductivity 70-75 µS/cm
Thermal decomposition No data available

10. STABILITY AND REACTIVITY

Reactivity Not determined
Storage stability Stable between 2°C and 8°C under dark conditions
Hazardous Reactions Not determined
Conditions to avoid Protect from freezing, light, and extreme heat.
Incompatibilities Not determined
Hazardous Decomposition Products Not determined. During thermal decomposition, it may be possible to generate irritating vapors and/or toxic fumes of hydrogen chloride and oxide forms on the chemical constituent components within the formulation.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Not determined for the product formulation.
Irritation and corrosion Not determined for the product formulation. It is assumed the preparation is irritating to eyes, respiratory system and skin.
Sensitisation Not determined for the product formulation.
Chronic exposure Not determined for the product formulation.
Signs and Symptoms of Exposure The chemical, physical, and toxicological properties have not been thoroughly investigated.
Potential Health Effects
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects	No data available
Mobility	No data available
Persistence/Biodegradability	No data available
Bioaccumulation	No data available
Other Adverse Effects	No data available

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Disposal should be performed in accordance with with national or regional requirements.
Contaminated packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

RID/ADR	Non-hazardous for road transport.
IMDG	Non-hazardous for sea transport.
IATA	Non-hazardous for air transport.

15. REGULATORY INFORMATION

Caution: Substance not yet fully tested (EU).

In accordance with local and national regulations, the product is classified and labelled in accordance with Directive 1999/45/EC.

Hazard symbols	---	
R-phrases	---	
S-phrases	S23	Do not breathe vapor/spray
	S24/25	Avoid contact with skin and eyes
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S28	After contact with skin, wash immediately with plenty of soap and water.
	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection
	S63	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
	S64	If swallowed, rinse mouth with water (only if the person is conscious)

16. OTHER INFORMATION

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

Aqix Ltd cannot accept liability any damage resulting from handling or from contact with the above product, whether suggested or not by the company, as the actual conditions of use are outside the Company's control; nor can the Company accept liability for infringement of any third party's patent or other intellectual property

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

DATA SOURCE

Aqix Ltd, Imperial College Incubator, London, SW7 2AZ, UK.