

Safety Data Sheet

TRADE NAME **AQUARIS RM**

1. IDENTIFICATION OF THE PRODUCT / INTRODUCTION OF THE COMPANY

Chemical properties	Liquid acidic
Range of application	Cleaning agent for RO-membranes
Company Identification	BWT AQUA Ltd. Hauptstrasse 192 CH-4147 Aesch Phone: +41 (0) 61 755 88 99 (Mo-Fr: 8.00-17.00 h) Fax: +41 (0) 61 755 88 90
Swiss Toxicological Information Center	Phone +41 (0)44 251 51 51 (24 h-emergency telephone) National 145

2. INFORMATION ON INGREDIENTS

Chemical description	Substance			
	CAS-No.	Masse %	Classification	No. EINECS
Lactic acid	79-33-4	50-100 %	R 38-41, Xi	201-196-2
Citric acid	5949-29-1	10-25 %	R 36/38, Xi	201-069-1

3. HAZARDS IDENTIFICATION

Hazard description Xi Irritation



Irritating to eyes and skin. Risk of serious damage to eyes.

4. FIRST AID MEASURES

General recommendations	Remove contaminated clothing immediately and wash before re-use.
Inhalation	Fresh air. Seek medical advice.
Skin contact	Wash affected skin with plenty of running water and soap. Seek medical advice if necessary.
Eye contact	Flush eyes with plenty of running water for at least 15 minutes – immediately while keeping the eyelids wide open. Consult with an ophthalmologist immediately in all cases.
Ingestion	Rinse mouth and make victim drink plenty of water. Do not attempt to neutralize. Do not induce vomiting. Fresh air. Call immediately medical advice.

5. FIRE FIGHTING MEASURES

Suitable extinguishing agents	CO ₂ , quicklime or water jet. Big fire: water jet or alcohol constant foam.
Special hazards caused by the material, its products of combustion or resulting gases	Irritating gaze and steam.
Protective equipment	In all cases wear self-contained breathing apparatus and full protective acid resistant suit.

6. ACCIDENTAL RELEASE MEASURES

Personal protection	Wear protective clothing. Keep unprotected persons away.
Environmental precautions	Do not allow to enter sewers, rivers, soils without neutralization.
Procedures	Dam large quantities of liquid with sand or earth and take up with liquid-absorbent material. Collect the product with suitable means. Place everything into a closed, labelled container compatible with the product.

7. HANDLING AND STORAGE

Handling	
Protection of fire and explosion	Open container carefully. Avoid formation of aerosol. No special measures necessary.
Storage	
Requirements for storage	Keep container tightly closed. Store in dry and cool area. Protect from heat and direct sun. Acidresisting floor.
Further information	Do not store with alkalis.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION EQUIPMENT

Occupational Exposure Limits	None.
Respiratory protection	Use A1P2 breathing-protection half mask in case of contact with aerosols.
Hand protection	Protective gloves – acid resistant. Following material: Caoutchouc – NR (0.5 mm) (use unpowdered and allergy tested products), polychloroprene – CR (0.5 mm), nitrile caoutchouc/nitrile latex – NBR (0.35 mm), butyl caoutchouc – BR (0.5 mm), fluorine caoutchouc – FKM (0.4 mm), polyvinyl chloride – PVC (0.5 mm)
Eye protection	Use tight-fitting protective goggles.
Body protection	Wear acid resistant clothings.
Hygiene measures	Do not eat/drink while working. Wash hands/face after work/before breaks.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Colour	yellowish
Odour	odourless

DATA RELEVANT FOR SAFETY:

Melting point		n. a.
Boiling point		n. a.
Ignition temperature		1000°C (DIN 51794)
Self inflammation		n.a.
Explosive properties		n. a.
Vapeur Pressure	T=20°C	23.0 hPa (DIN 51754)
Density	T=20°C	1.223 g/cm ³
Solubility in water	T=25°C	completely miscible
pH-value	T=20°C	<1.0
Refractivity index		1.417-1.4247

10. STABILITY AND REACTIVITY

Conditions/materials to avoid	No overheating.
Dangerous reactions	Keep away from highly acidic or alkaline substances
Hazardous decomposition products	Irritating gaze/aerosol.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXIZITY

Lactic acid: 79-33-4

LD₅₀ (oral, rat) >3730 mg/kg

LD₅₀ (dermal, rabbit) >2000 mg/kg

Citric acid: 5949-29-1

LD₅₀ (oral, mouse) >5040 mg/kg

LD₅₀ (oral, rat) >3000 mg/kg

Primary effects:

Skin contact

Irritating to skin and mucous membranes.

Eye contact

The liquid splashed in the eyes may cause irritation and reversible damage.

Sensitization

No sensibilization known.

Ingestion

Burns of mouth, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach.

12. ECOLOGICAL INFORMATION

Persistence and degradability Products is degradable.

Citric acid: 5949-29-1 - waterfree

EC₅ /16 h > 10000 mg/l (Pseudomonas putida)

EC₅₀ /72 h 120 mg/l (Daphnia magna)

IC₅ /7 d 640 mg/l (Scenedesmus quadricauda)

LC₅₀ /96 h 440-760 mg/l (Leuciscus idus)

Lactic acid: 79-33-4

EC₅₀ /48 h 240 mg/l (Daphnia magna)

IC₅₀ /72 h 3500 mg/l (Algen)

LC₅₀ /96 h 320 mg/l (Brachydanio rerio)

Aquatic toxicity

Toxic on fish and plankton. Harmful effect due to pH shift.

Behaviour in sewage plant

Do not allow to enter sewage system without neutralization. A harmful effect on aquatic organisms/activated sludge cannot be excluded in case of improper handling or disposal

13. DISPOSAL CONSIDERATIONS

Product

Recommendations Contact the local authorities in charge or approved waste disposal company

Contaminated packaging

Recommendations Disposal in compliance with official regulations. Handle contaminated packaging like the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

Cleansing agent Water

14. TRANSPORT INFORMATION

Not subject to transport regulations.

15. REGULATORY INFORMATION

Markings according to EU guidelines
Danger symbol



Xi Irritating

Risk Statement

R 38 Irritating to skin.
R 41 Risk of serious damage to eyes.

Safety Statement

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 27/28 In case of contact with skin take off immediately all contaminated clothing and wash immediately with plenty of water.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (Show the label where possible).
S 64 If swallowed, rinse mouth with water (only if the person is conscious).

Water hazard class

WGK 1: slightly polluting substance

16. OTHER INFORMATION

Date of issue
n.a. = not applicable
Relevant R-phrase

25.7.2001
R 36 Irritating to eyes.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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