

Safety Data Sheet

According to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP and GHS).

Comply with EU regulations CEN/TS 164, EN 15039 and EN 15040 used for treatment of water intended for human consumption

Version: 5 Language: Labelling pursuant to CLP regulation Revision date: 30.01.2019

1. Identification of the substance or preparation

ΕN

RPI-4500A

REACH registration number: Downstream User Use of the substance / preparation: Reverse osmosis antiscalant **Company/undertaking identification** Manufacturer & Supplier: Toray Membrane Europe AG Grabenackerstrasse 8b **Telephone:** +41 (0) 61 415 87 10 Telefax: +41 (0) 61 415 87 20 CH 4142 Münchenstein 1 **Telephone:** +41 (0) 61 415 87 10 Telefax: +41 (0) 61 415 87 20 Information contact: Toray Membrane Europe AG **Telephone:** +41 (0) 61 415 87 10 (CH) Telefax: +41 (0) 61 415 87 20 (CH) E-mail: info@toray-membrane.com **Emergency telephone:** Telephone: Your local Emergency Services Telephone: +41 (0) 61 415 87 10 (CH) This number is serviced during office hours. Toray Membrane Europe AG Department responsible for information: Toray Membrane Europe AG

2. Hazards identification

Classification of the substance or mixture

Regulation (EC) No 1272/2008:

Directive 67/548/EEC:

Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms:

No Hazard Pictogram, No Signal Word No Cautionary Statement

H phrases:

P phrases:

Keep out of reach of children.
Do no eat, drink or smoke when using this product.
305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Labelling according to Directive 67/548/EEC

Hazard symbols:

 R phrases:

 S phrases:
 1/2
 Keep locked up and out of the reach of children.

 13
 Keep away from food, drink and animal feedingstuffs.

 20/21
 When using do not eat, drink or smoke.

 26
 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Other hazards

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

3. Composition/information on ingredients

Chemical characterization (substance): Aqueous solution of sodium salts of a polyacrylic acid and a phosphonate.

Contains components listed below:

Polyacrylate, Sodium salt Content: 2 - 10 Wt-% EINECS-No.: -CAS-No.: -Classification: -

Phosphonate, Sodium salt Content: 10 - 40 Wt-% EINECS-No.: -CAS-No.: -Classification: -

Additional information:

This preparation does not contain harmful substances and/or substances hazardous to the environment in accordance with the substance directive 67/548/EC or substances to which occupational exposure limit values are allocated.

4. First Aid measures

General information: After inhalation: After skin contact: After eye contact: After ingestion:	No special measures are necessary. Provide fresh air. Seek medical attention if problems persist. After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment. In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Rinse mouth immediately and drink large quantities of water. Do not induce vomiting. Seek medical attention if problems persist.
Self-protection of the first aider: Information to physician: Symptoms: Nature of Hazard: Treatment:	No special measures are necessary. No symptoms known up to now. none Treat symptomatically.

5. Fire fighting measures

General information:

Extinguishing materials should be selected according to the surrounding area. The product itself is not combustible.

Suitable extinguishing media:

Carbon dioxide (CO2). Dry extinguishing powder. Water fog. Foam.

Extinguishing media which must not be used for safety reasons:

High power water jet.

Special exposure hazards arising from the substance itself, combustion products, resulting gases: Carbon dioxide. Carbon monoxide. Nitrogen oxides (NOx). Phosphorus oxides. Pyrolysis products, toxic.

Special protective equipment for fire-fighters:

In case of fire: Wear self-contained breathing apparatus. Protective clothing.

Additional information:

Contaminated fire-fighting water must be collected separately.

6. Accidental release measures

Personal precautions:

See protective measures under point 7 and 8.

Environmental precautions:

No special environmental protection measures are necessary.

Methods for cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the assimilated material according to the section on waste disposal.

Additional information:

none

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7. Handling and storage

Handling

Information for safe handling: The following must be prevented: metals.

Technical measures and storage conditions:

Provide for sufficient ventilation and punctiform suction at critical points.

Precautions against fire and explosion:

No special precautionary measures are necessary.

Additional information:

none

Storage

Technical measures and storage conditions: Maximum storage temperature: 30 °C Minimum storage temperature: 5 °C

Packaging materials:

Keep only in the original container.

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place.

Information about storage in one common storage facility: Do not store together with: Food and fodder

Further information concerning storage conditions: none

Storage class: 12

Specific use(s):

Observe instructions for use.

8. Exposure controls / Personal protection

Critical values of exposure:

Does not contain substances above concentration limits fixing an occupational exposure limit.

Components with workplace or biological limit values to be monitored:

Limitation and monitoring of exposure

Exposure limit values:

refer to chapter 7. No further action is necessary.

Respiratory protection:

With correct and proper use, and under normal conditions, breathing protection is not required.

Hand protection:

Suitable gloves type: Pull-over gloves of rubber.

Eye protection:

Splash proof safety goggles.

Body protection:

Protective clothing.

Environmental exposure controls:

refer to chapter 7. No further action is necessary.

General protection and hygiene measures:

Do not eat, drink, smoke or sniff at the workplace. Wash hands before breaks and at the end of work. Apply skin care products after work. Wash contaminated clothing prior to re-use.

9. Physical and chemical properties

Form: Colour: Odour:	Liquid Yellow Characteristic
pH: Melting point / melting range: Boiling point / boiling range: Flash point: Flammability: Explosion hazard: Lower explosion limit: Upper explosion level: Ignition temperature (AIT): Oxidizing properties: Vapour pressure: Relative density: Solubility in water: (g/l): Fat solubility: (g/l): Solubility in organic solvent: Partition coefficient (n-octanol / water) (log P O/W): Viscosity: Relative vapour density at 20°C: Speed of vaporization/evaporation rate: Solvent separation test (%): Solvent content (%): Bulk density:	4,0 - 4,5 -10 °C 100 - 105 °C 100 °C No data available No data available No data available No data available No data available No data available 1,14 - 1,17 g/cm ³ unlimited No data available No data available
	not applicable

Additional information: None

10. Stability and reactivity

Conditions to avoid: none

Materials to avoid: none

Dangerous reactions:

Reacts with : metal.

Hazardous decomposition products:

Carbon dioxide. Carbon monoxide. Nitrogen oxides (NOx). Phosphorus oxides. Pyrolysis products, toxic.

11. Toxicological information

Acute toxicity:

There are no data available on the preparation/mixture itself.

Specific symptoms from animal test:

Acute toxicity, oral (LD50): Rat > 5000 mg/kg Acute toxicity, dermal (LD50): Rabbit > 5000 mg/kg

Irritation and etching

Irritation effect on the skin:	Not an irritant.
Irritation effect on the eye:	Not an irritant.

Sensitization:

There are no data available on the preparation/mixture itself.

Effect after repeated or prolonged exposure:

There are no data available on the preparation/mixture itself.

CMR effects (carcinogen, mutagenic and toxicity for reproduction): There are no data available on the preparation/mixture itself.

Additional information:

There are no data available on the preparation/mixture itself.

Practical experience: none

none

Other observations: none

General remarks:

According to our experience and the information available to us, the product has no negative impact on health.

12. Ecological information

General information:

none

Ecotoxicity:

Acute fish toxicity (LC50): Oncorhynchus mykiss (Rainbow Trout) > 290 mg/l (96 h) Bacterial toxicity (EC0): n.a.

Mobility:

There are no data available on the mixture itself.

Persistence and Biodegradation:

Technically correct releases of minimal concentrations to adapted biological sewage treatment facility, will not disturb the biodegradability of activated sludge.

Bioaccumulative potential:

There are no data available on the mixture itself.

Results of PBT assessment:

There are no data available on the mixture itself.

Other harmful effects:

There are no data available on the mixture itself.

Further ecological information:

none

13. Disposal considerations

General information:

Can be incinerated together with household waste in compliance with official regulations after consulting approved waste disposal companies and authorities in charge.

Waste Code

The assignment of waste codes / waste designations is done according to the European directory of waste codes (AVV) and to specific processes. The final user must redefine and assign the most appropriate Waste Catalogue Code.

Contaminated packaging:

Cleaned and empty containers may be recycled. Handle contaminated packaging in the same way as the substance itself.

Additional information:

Waste disposal according to official state regulations.

14. Transport information

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Overland trans	port (ADR/RID)	
Technical na ROPUR RPI-4 -		
UN-No.: Label: Remark:	- - Packing Group: - warning sign: Not a hazardous material with respect to these transportation regulations.	-
Transport by s Proper Shipp ROPUR RPI-4	ing name:	
-		
UN-No.:	-	
Label:	- Packing group: -	
EmS-No:	- MFAG: - Marine pollutant: no	
Special	-	
Provisions:		
Remark:	Not a hazardous material with respect to these transportation regulations.	
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Air transport (ICAO-TI / IATA-DGR)

Proper Shipping name: ROPUR RPI-4500A

 UN/ID-No.:

 Label:

 Remark:
 Not a hazardous material with respect to these transportation regulations.

Postage:

15. Regulatory information

Classification:

Product is classified and labelled in accordance with EC regulations or the corresponding national laws.

A safety evaluation was conducted:

Hazardous component(s) for labelling: -

Special labelling of particular preparations: none

EU-Regulations:

Data concerning the Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOC-RL):

none

Data concerning the decree (EG) No. 648/2004 (Detergents Regulations) none

National regulations: Moreover, national legislation has to be observed!

Restrictions of use: none

Statutory order on hazardous incidents: none

Storage class: 12 Non-flammable liquids

Water Hazard Class:

1 Slightly water polluting substance

Technical Instructions on Air Quality (TI-Air): none

Further regulations, limitations and legal requirements: none

16. Other information

Wording of the H and R-phrases under paragraph 3 Regulation (EC) No 1272/2008

Directive 67/548/EEC

Training advices: none

Recommended restrictions of use: refer to chapter 1.

Further remarks:

The information in this safety data sheet is correct to the best of our knowledge at the time of printing. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

There is no liability or warranty, expressed or implied, assumed regarding merchantability, operational capability for a particular purpose, use, or any other kind hereafter with respect to the information or the product to which the information relates.

Changes:

none

Data sources:

Data arise from reference works and literature.