



Certified by  
NSF International

For use in drinking water  
treatment

Certified to  
NSF/ANSI 60

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

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

## 1. Identification of the substance or preparation

# RPI-4900

REACH registration number: Downstream User

Use of the substance / preparation: Reverse Osmosis Antiscalant

### Company/undertaking identification

#### Manufacturer & Supplier:

Toray Membrane Europe AG  
Grabenackerstrasse 8b

CH 4142 Münchenstein 1

Telephone: +41 (0) 61 415 87 10

Telefax: +41 (0) 61 415 87 20

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@toraywater.com

#### Emergency telephone:

This number is serviced during office hours

.

Telephone: Your local Emergency Services

Telephone: +41 (0) 61 415 87 10 (CH)

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 Pictogram,  
No Signal Word  
No Precautionary Statement

Signal word: -

H phrases: -

P phrases: 102 Keep out of reach of children.  
270 Do not 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: 42/43 - May cause sensitization by inhalation and skin contact.

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 salt of a phosphonate.

#### Components listed below:

Phosphonate, Sodium salt

Content: 20 -50 Wt-%

EINECS-No.: 229-146-5

CAS-No.: 6419-19-8

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.

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## 4. First Aid measures

<b>General information:</b>	No special measures are necessary.
<b>After inhalation:</b>	Provide fresh air. Seek medical attention if problems persist.
<b>After skin contact:</b>	After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.
<b>After eye contact:</b>	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.
<b>After ingestion:</b>	Rinse mouth immediately and drink large quantities of water. Do not induce vomiting. Seek medical attention if problems persist.
<b>Self-protection of the first aider:</b>	No special measures are necessary.
<b>Information to physician:</b>	
<b>Symptoms:</b>	No symptoms known up to now.
<b>Nature of Hazard:</b>	none
<b>Treatment:</b>	Treat symptomatically.

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## 5. Fire fighting measures

<b>General information:</b>	Extinguishing materials should be selected according to the surrounding area. The product itself is not combustible.
<b>Suitable extinguishing media:</b>	Carbon dioxide (CO <sub>2</sub> ). Dry extinguishing powder. Water fog. Foam.
<b>Extinguishing media which must not be used for safety reasons:</b>	High power water jet.
<b>Special exposure hazards arising from the substance itself, combustion products, resulting gases:</b>	Carbon dioxide. Carbon monoxide. Nitrogen oxides (NO <sub>x</sub> ). Phosphorus oxides. Pyrolysis products, toxic.
<b>Special protective equipment for fire-fighters:</b>	In case of fire: Wear self-contained breathing apparatus. Protective clothing.
<b>Additional information:</b>	Contaminated fire-fighting water must be collected separately.

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## 6. Accidental release measures

<b>Personal precautions:</b>	See protective measures under point 7 and 8.
<b>Environmental precautions:</b>	No special environmental protection measures are necessary.
<b>Methods for cleaning up:</b>	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.
<b>Additional information:</b>	none

## 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: 25 °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.

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## 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

<b>Form:</b>	Liquid
<b>Colour:</b>	yellow
<b>Odour:</b>	characteristic
<b>pH (1%):</b>	9.5 – 11.0
<b>Melting point / melting range:</b>	-15 °C
<b>Boiling point / boiling range:</b>	105 °C
<b>Flash point:</b>	100 °C
<b>Flammability:</b>	No data available
<b>Explosion hazard:</b>	No data available
<b>Lower explosion limit:</b>	No data available
<b>Upper explosion level:</b>	No data available
<b>Ignition temperature (AIT):</b>	No data available
<b>Oxidizing properties:</b>	No data available
<b>Vapour pressure:</b>	No data available
<b>Relative density:</b>	1,38 to 1.44 g/cm <sup>3</sup>
<b>Solubility in water: (g/l):</b>	unlimited
<b>Fat solubility: (g/l):</b>	No data available
<b>Solubility in organic solvent:</b>	No data available
<b>Partition coefficient (n-octanol / water) (log P O/W):</b>	No data available
<b>Viscosity:</b>	< 20 mPas (20 °C)
<b>Relative vapour density at 20°C:</b>	No data available
<b>Speed of vaporization/evaporation rate:</b>	No data available
<b>Solvent separation test (%):</b>	No data available
<b>Solvent content (%):</b>	No data available
<b>Package density:</b>	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.

**LD/LC50 values that are relevant for classification:**

Acute toxicity, oral (LD50): Rat > 17800 mg/kg

Acute toxicity, dermal (LD50): Rabbit 15800 mg/kg

**Primary Irritant Effect****Irritation effect on the skin:**

Repeated or prolonged contact may cause slight irritation to skin not resulting in classification.

**Irritation effect on the eye:**

May cause slight irritations.

**Sensitization:**

Based on available data, the classification criteria are not met. Data based on animal data and human exposure reports.

**Effect after repeated or prolonged exposure:**

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

**CMR effects (carcinogen, mutagenic and toxicity for reproduction):**

Based on available data, the classification criteria are not met. Not classified either for mutagenicity or genotoxicity.

The RPI4900 Phosphonate salt did not induce chromosome damage either in vitro or in vivo. Additionally, no structural alerts for genotoxic activity was found. Not toxic for reproduction based on rats three generation study.

**Additional information:**

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

**Practical experience:**

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:**

Water hazard class 1 (German Regulation).

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or un-neutralized.

**Ecotoxicity:**

Fish toxicity (LC50): *Oncorhynchus mykiss* (Rainbow Trout) > 330 mg/l (96 h)

Not harmful to aquatic organisms (short term and long term exposure). RPI-4900 can lead to growth inhibition in algae, but this effect is a consequence of the substance's complexation with essential nutrients and not of true toxicity.

**Mobility:**

No further relevant information available.

**Persistence and Biodegradation:**

Releases of minimal concentrations (diluted) to adapted biological sewage treatment facility will not disturb the biodegradability of activated sludge. Easily biodegradable. Partially photodegradable over short time period (according to the criteria of the OECD).

**Bioaccumulative potential:**

Not potentially bioaccumulative (Log Kow = -3.53). No further relevant information available.

**Results of PBT assessment:**

Not applicable.

**Other harmful effects:**

No further relevant information available.

**Further ecological information:**

No further relevant information available.

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### 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:**

Disposal must be made according to official regulations

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### 14. Transport information

**Overland transport (ADR/RID)****Technical name:**

ROPUR SCALE INHIBITOR RPI-4900

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**UN-No.:**

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**Label:**

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**Packing Group:**

-

**warning sign:**

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**Remark:**

Not a hazardous material with respect to these transportation regulations.

**Transport by sea (IMDG)****Proper Shipping name:**

ROPUR SCALE INHIBITOR RPI-4900

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**UN-No.:** -  
**Label:** -                   **Packing group:** -  
**EmS-No:** -                   **MFAG:** -                   **Marine pollutant:** no  
**Special Provisions:** -  
**Remark:** Not a hazardous material with respect to these transportation regulations.

#### Air transport (ICAO-TI / IATA-DGR)

**Proper Shipping name:**  
ROPUR SCALE INHIBITOR RPI-4900  
-

**UN/ID-No.:** -  
**Label:** -                   **Packing group:** -  
**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 Chemical Safety Assessment has been carried out

#### 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 (when released in the concentrated form and rapidly).

#### Technical Instructions on Air Quality (TI-Air):

none



**Further regulations, limitations and legal requirements:**none

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**16. Other information****Wording of the H and R-phrases under paragraph 3****Regulation (EC) No 1272/2008**

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**Directive 67/548/EEC**

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**Training instructions:**

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.

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