



NSF International

For use in drinking water

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

ΕN Revision date: 30.01.2019 Language:

Labelling pursuant to CLP regulation

1. Identification of the substance or preparation

RPI-3000A

REACH registration number: Downstream User

Use of the substance / preparation: Reverse Osmosis Antiscalant

Company/undertaking identification

Manufacturer & Supplier:

Toray Membrane Europe AG Grabenackerstrasse 8b

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Information contact:

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Telephone: Your local Emergency Services This number is serviced during office hours.

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Toray Membrane Europe AG

Department responsible for information:

Toray Membrane Europe AG

2. Hazards identification

Classification of the 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.

405: keep locked if possible.

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.

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 salts of a polyacrylate(s) and phosphonate(s).

Contains adjacent substances:

Polyacrylate, Sodium salt Content: 1 - 40 Wt-% EINECS-No.: -CAS-No.: 9003-04-7

CAS-No.: 9003-Classification: -

Phosphonate, Sodium salt Content: 10 - 50 Wt-% EINECS-No.: Confidential

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: No special measures are necessary.

After inhalation: -Provide fresh air. Seek medical attention if problems persist.

After skin contact: -Wash thoroughly with soap and water. Remove contaminated

clothing. Get medical attention if skin irritation develops or persists.

After eye contact: -Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes.

Subsequently consult an ophthalmologist.

After ingestion: -Do not feed anything by mouth to an unconscious or convulsive

victim. Rinse mouth immediately. When conscious drink large quantities of water. Do not induce vomiting. Seek medical attention.

Self-protection of the first aider: No special measures are necessary.

Information to physician:

Symptoms: No symptoms known up to now.

Nature of Hazard: None

Treatment: 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:

Oxides of carbon, nitrogen and phosphorus.

Special protective equipment for fire-fighters:

In case of fire. Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

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

7. Handling and storage

Handling

Information for safe handling:

The following must be prevented: metals

Technical meaures 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 (avoid freezing 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.

Eve 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: liquid
Colour: Red-Brown
Odour: characteristic

pH: 4,8-5,3 Melting point / melting range: $-10\,^{\circ}\text{C}$ Boiling point / boiling range: $100-105\,^{\circ}\text{C}$ Flash point: $100\,^{\circ}\text{C}$

Flammability: No data available **Explosion hazard:** No data available Lower explosion limit: No data available **Upper explosion level:** No data available Ignition temperature (AIT): No data available Oxidizing properties: No data available Vapour pressure: No data available Relative density: 1,14 - 1,17 g/cm³

Solubility in water: (g/l): Unlimited

No data available Fat solubility: (g/l): Solubility in organic solvent: No data available Partition coefficient (n-octanol / water) (log P O/W): No data available **Viscosity:** 50 mPas (20 °C) Relative vapour density at 20°C: No data available Speed of vaporization/evaporation rate: No data available Solvent separation test (%): No data available Solvent content (%): No data available **Bulk density:** Not applicable

Additional information:

none

10. Stability and reactivity

Conditions to avoid:

None

Materials to avoid:

None

Dangerous reactions:

A slow reaction with some metallic surfaces might occur.

Hazardous decomposition products:

Carbon dioxide. Carbon monoxide. Nitrogen oxides (NOx). phosphorus oxides.

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

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

Overland transport (ADR/RID)

Technical name: ROPUR RPI-3000A

Not classified as a dangerous good under transport regulations

Transport by sea (IMDG)

Proper Shipping name: ROPUR RPI-3000A

Not classified as a dangerous good under transport regulations

Air transport (ICAO-TI / IATA-DGR)

Proper Shipping name: ROPUR RPI-3000A

Not classified as a dangerous good under transport regulations

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 (EC) 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

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Directive 67/548/EEC

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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.