

## PT-Roclean111 Acid Cleaner

### 1. Product Characteristic

- Suit to all aromatic polyamide film and acetate film.
- Contains a powerful chelating agent to promote the dissolution of metal deposits.
- Contains buffering agent to inhibit pH changes, maintaining pH between 2.0 and 4.0.
- Liquid agent is mixed with water rapid lead to the reduction of cleaning time.
- Be able to miscible with water in any ratio.

PT-ROClean 111 is the liquid formulation with acid pH for the removal of scales from metal oxides, calcium carbonate, and other salts. It is suitable for aromatic polyamide reverse osmosis film, microfiltration film (MF) and Nano filtration film (NF) and ultrafiltration film (UF). Excellent cleaning results can extend the running time and service life of the film. PT-ROClean131 should be used in conjunction with PT-ROClean111.

### 2. Product Feature

- Appearance: light yellow liquid
- Density (20):  $1.15 \pm 0.05 \text{g/cm}^3$
- pH(1.0%): 2.0 ~ 4.0
- Freezing point:  $-5 \text{ }^\circ\text{C}$
- Solubility: completely soluble in water

### 3. Dilution

The concentration of the agent in the dosing box is 1.0 to 3.0 % generally.

### 4. Clean Guide

- Check and rinse the entire RO cleaning system to keep it clean.
- The contamination type of RO film components and cause of contamination must be basically defined before cleaning. It is necessary use the correct method according to the situation. After cleaning, analyze the causes of contamination and make corresponding pre-treatment preventive action.
- During the cleaning process, the temperature of the cleaning solution should always be within the required temperature range (30 to 35).
- The flow rate should adopt the recommendation by the film manufacturer or pharmaceutical supplier. In addition, the flow rate and soaking time are determined by the type and degree of contamination of film components. If no recommendation is given, the technical engineer of POLYMER can provide guiding based on the actual situation of the system. For systems with more serious contamination, it is best to consult POLYMER's technical engineers during cleaning to obtain the best cleaning solution.
- Multi-stage RO systems, it is best to clean each section separately for maximum effect. If the cleaning

solution becomes cloudy or the pH exceeds the range recommended by POLYMER, reconstitute the lotion or replenish the cleaning agent.

- Rinse with RO water before the system is reused.

## **5. Package Standard**

25kg per original seal barrel, keep in a cool place. Please refer to MSDS (Material Safety Data Sheet) or COA (Certificate of Authenticity) for the utilization of this product. Products expire date: three years.

## PT-Roclean921 Acid Cleaner

### 1. Product Characteristic

- Suit to all aromatic polyamide film and acetate film.
- Contains a strong chelating agent to promote the dissolution of metal deposits.
- Contains buffering agent to inhibit pH changes, maintaining pH between 2.0 and 4.0.
- Liquid agent is mixed with water rapid lead to the reduction of cleaning time.
- Be able to miscible with water in any ratio.

### 2. Product Feature

- Appearance: light yellow liquid
- Density(20°C):  $1.12 \pm 0.05 \text{g/cm}^3$
- pH(1.0%): 2.0 ~ 4.0
- Solubility: completely soluble in water

### 3. Dilution

- The concentration of the agent in the dosing box is 2.0 to 5.0 % generally.

### 4. Clean Guide

- Check and rinse the entire RO cleaning system to keep it clean.
- The contamination type of NF, RO film components and cause of contamination must be basically defined before cleaning. It is necessary use the correct method according to the situation. After cleaning, analyze the causes of contamination and make corresponding pre-treatment preventive action.
- During the cleaning process, the temperature of the cleaning solution should always be within the required temperature range (30 to 35 °C).
- The flow rate should adopt the recommendation by the film manufacturer or pharmaceutical supplier. In addition, the flow rate and soaking time are determined by the type and degree of contamination of film components.
- If no recommendation is given, the technical engineer of POLYMER can provide guiding based on the actual situation of the system.
- For systems with more serious contamination, it is best to consult POLYMER's technical engineers during cleaning to obtain the best cleaning solution.
- Multi-stage RO systems, it is best to clean each section separately for maximum effect. If the cleaning solution becomes cloudy or the pH exceeds the range recommended by POLYMER, reconstitute the lotion or replenish the cleaning agent

- Rinse with RO water before the system is reused.

## **5. Package Standard**

25kg per original seal barrel, keep in a cool place. Please refer to MSDS (Material Safety Data Sheet) or COA (Certificate of Authenticity) for the utilization of this product. Products expire date: three years.

# PT-Roclean131 Alkaline Cleaner

## 1. Product Characteristic

- Suit to all aromatic polyamide film.
- Contains a strong chelating agent to promote the dissolution of metal deposits.
- It can remove oil on the film surface, organic matter and biological mucous membrane efficiently.
- Contains buffering agent to inhibit pH changes, maintaining pH between 10.0 and 14.0.
- Liquid agent to reduce cleaning time.
- Best effect with the temperature increase.
- PT-ROClean 131 is the liquid formulation with alkaline pH for the removal of scales from Sulfate scale, organic matter, colloid, microbial clay and granular matter. It is suitable for aromatic polyamide reverse osmosis film, microfiltration film (MF) and Nano filtration film (NF) and ultrafiltration film (UF). Excellent cleaning results can extend the running time and service life of the film. PT-ROClean131 should be used in conjunction with PT-ROClean111.

## 2. Product Feature

- Appearance: light yellow liquid
- Density(20°C) :  $1.12 \pm 0.05 \text{g/cm}^3$
- pH(1.0%) : 10.0 ~ 14.0
- Freezing Point: -5°C
- Solubility: completely soluble in water

## 3. Dilution

- The concentration of the agent in the dosing box is 1.0 to 3.0 % generally.

## 4. Cleaning Guide

- Check and rinse the entire RO cleaning system to keep it clean.
- The contamination type of RO film components and cause of contamination must be basically defined before cleaning. It is necessary use the correct method according to the situation. After cleaning, analyze the causes of contamination and make corresponding pre-treatment preventive action.
- During the cleaning process, the temperature of the cleaning solution should always be within the required temperature range (30 to 35 °C).
- The flow rate should adopt the recommendation by the film manufacturer or pharmaceutical supplier. In addition, the flow rate and soaking time are determined by the type and degree of contamination of film

components. If no recommendation is given, the technical engineer of POLYMER can provide guiding based on the actual situation of the system. For systems with more serious contamination, it is best to consult POLYMER 's technical engineers during cleaning to obtain the best cleaning solution.

- Multi-stage RO systems, it is best to clean each section separately for maximum effect. If the cleaning solution becomes cloudy or the pH exceeds the range recommended by POLYMER, reconstitute the lotion or replenish the cleaning agent. Rinse with RO water before the system is reused.

## **5. Package Standard**

25kg per original seal barrel, keep in a cool place. Please refer to MSDS (Material Safety Data Sheet) or COA (Certificate of Authenticity) for the utilization of this product. Products expire date: three years.

# PT-Roclean931 Alkaline Cleaner

## 1. Product Characteristic

- Suit to all aromatic polyamide film.
- Contains a strong chelating agent to promote the dissolution of metal deposits.
- It can remove oil on the film surface, organic matter and biological mucous membrane efficiently.
- Contains buffering agent to inhibit pH changes, maintaining pH between 10.0 and 14.0.
- Liquid agent to reduce cleaning time.
- Best effect with the temperature increase.

## 2. Product Feature

- Appearance: light yellow liquid
- Density(20°C):  $1.14 \pm 0.05 \text{g/cm}^3$
- pH(1.0%): 10.0 ~ 14.0
- Solubility: completely soluble in water

## 3. Dilution

- The concentration of the agent in the dosing box is 2.0 to 5.0 % generally.

## 4. Cleaning Guide

- Check and rinse the entire RO cleaning system to keep it clean.
- The contamination type of NF, RO film components and cause of contamination must be basically defined before cleaning. It is necessary use the correct method according to the situation. After cleaning, analyze the causes of contamination and make corresponding pre-treatment preventive action.
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- For systems with more serious contamination, it is best to consult POLYMER's technical engineers during cleaning to obtain the best cleaning solution.
- Multi-stage RO systems, it is best to clean each section separately for maximum effect. If the cleaning solution becomes cloudy or the pH exceeds the range recommended by POLYMER, reconstitute the lotion

or replenish the cleaning agent.

- Rinse with RO water before the system is reused.

## **5. Package Standard**

25kg per original seal barrel, keep in a cool place. Please refer to MSDS (Material Safety Data Sheet) or COA (Certificate of Authenticity) for the utilization of this product. Products expire date: three years.