



# Driving

Membrane Performance  
with Ecolab's Ultrasil™ Program



**ECOLAB®**

Membrane care can be challenging and complex – you need a **solution customized to your unique membrane systems.**

With our highly tailored approach, we partner with you to **maintain and protect your membrane investment**, while taking the complexity out of cleaning and care.

# OPTIMIZE YOUR OPERATION & IMPROVE QUALITY

From increased production and longer run times to improved product quality, consistent product dispensing and minimized environmental impacts, you can trust Ecolab to help you achieve your desired results.

- **Increase** membrane capacity
- **Enhance** productivity
- **Reduce** water and energy consumption
- **Extend** membrane life
- **Meet** regulatory standards
- **Automate** chemical dispensing



## INNOVATIVE SANITATION SOLUTIONS

**Improve throughput and help eliminate contamination risks** with our efficient cleaning and sanitation program. Ecolab's automated dispensing solutions are designed to help ensure food safety, improve quality and extend the life of your assets.



## DEEP INDUSTRY KNOWLEDGE & EXPERTISE

Supported by years of industry experience, your plant is always in good hands. We run a **dedicated Center of Excellence** focused on membrane expertise and maintain collaborative partnerships with renowned academic institutions, element manufacturers and OEMs. We also offer **customized on-site membrane training** for your team.



## WORLD-CLASS SERVICE

With 1,600 service representatives globally, we offer technical hotline support as well as on-demand **Technical Service Specialist** support and **membrane diagnostics** using **in-house analytical equipment** and techniques to address your unique challenges.

## Membrane Care | PRODUCE MORE. ENHANCE QUALITY. PROTECT YOUR BRAND.

### Ultrasil™ Product Chemistry

A comprehensive portfolio of cleaning solutions for your membranes

Ultrasil chemistry provides effective soil removal for a wide variety of membrane applications helping you increase capacity and optimize your business.

#### Spotlight Innovation: Ultrasil™ 09

- **Patent pending, NPE-free** membrane innovation
- **Increase your operational capacity by up to 10%** with a more effective clean
- **Effectively manage** variable fat content and accommodate multiple feed streams
- **Compatible** with chlorinated alkaline and enzyme cleaning programs



### Ultrasil™ 09

An NPE-free surfactant that **provides effective fat removal**, helping you **increase your capacity** and optimize your business.

# PRECISION DISPENSING SYSTEM FOR MEMBRANES

IMPROVING PRODUCTIVITY AND WORKER SAFETY FOR WHEY PROCESSORS

The Precision Dispensing System for Membranes is a flow-based controlled dispensing system that accurately and safely dispenses chemistry and provides visibility into chemical consumption for membrane systems.



ACID + SURFACTANT CABINET

ALKALINE + CHLORINE CABINET

## KEY BENEFITS:

- Improves worker safety by eliminating incorrect product delivery and employee handling
- Reduces operating costs and drives productivity through flow-based dispensing that can dispense to up to 5 membrane systems
- Helps to protect membrane lifespan with accurate (+/-20 ml) dosing system to maintain system cleanliness
- Offers actionable insights with secure web-based consumption reporting



HUMAN HEALTH  
& SAFETY



PRODUCTIVITY



ASSETS



PRODUCT  
QUALITY

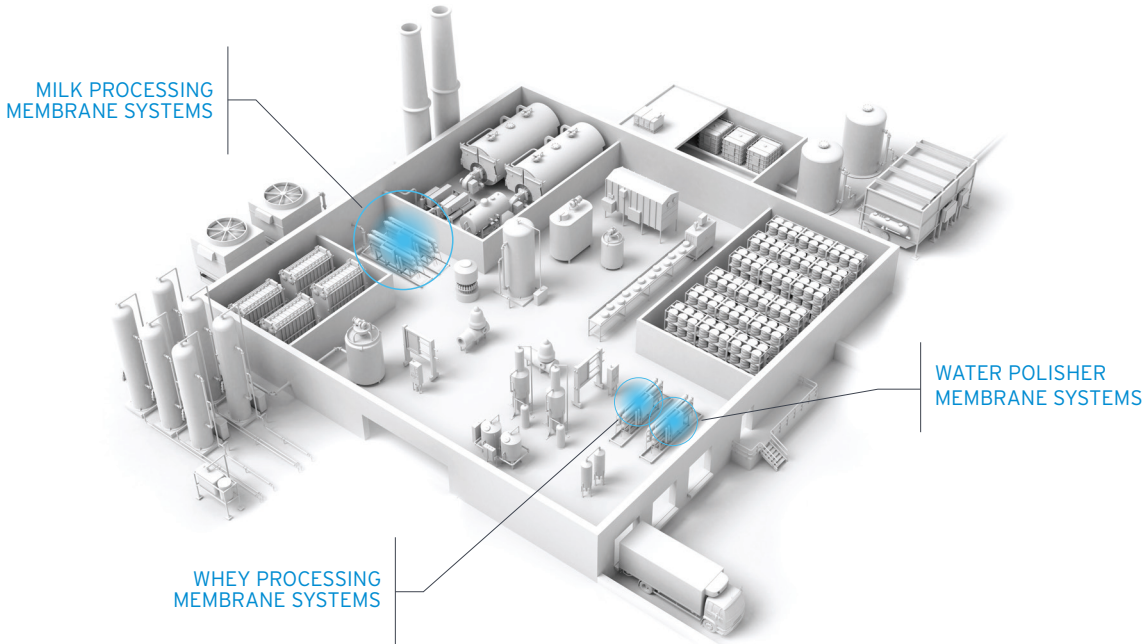


## Comprehensive Membrane Program – Technology, Service, Expertise

Ecolab gives you more than a great dispensing system. We offer a comprehensive membrane program that includes innovative sanitation solutions, industry expertise and world-class service. This comprehensive program helps to keep operations running efficiently and safely.

# ECOLAB'S PROCESS MEMBRANE CLEANING EXPERTS

deliver comprehensive membrane solutions throughout your facility.



**1600 RD&E ASSOCIATES**

**8 GLOBAL CENTERS specializing in MEMBRANE DIAGNOSTICS**

**40+ YEARS of MEMBRANE EXPERTISE**



To learn more, visit [ecolab.com/membranes](http://ecolab.com/membranes) or call 1-800-392-3392.

1 Ecolab Place  
St. Paul, MN 55102  
1.800.392.3392  
[www.ecolab.com](http://www.ecolab.com)



# ULTRASIL™ Membrane Care Program



**PRODUCT SOLUTION GUIDE**





**ALKALINE PRODUCTS..... 3**

- Ultrasil 22** Potassium based chlorinated – no surfactant  
PHYSICAL STATE: Liquid | pH: Basic
- Ultrasil 25** Sodium based chlorinated – no surfactant  
PHYSICAL STATE: Liquid | pH: Basic
- Ultrasil 91** Potassium based low sodium alkaline EDTA/surfactant  
PHYSICAL STATE: Liquid | pH: Basic
- Ultrasil 110** Sodium based alkaline EDTA/water conditioners/surfactant  
PHYSICAL STATE: Liquid | pH: Basic
- Ultrasil 131** Potassium/sodium blend EDTA/water conditioners – no surfactant  
PHYSICAL STATE: Liquid | pH: Basic
- Ultrasil CMF** For PALL CMF Systems – Sodium based alkaline/EDTA  
PHYSICAL STATE: Liquid | pH: Basic
- Ultrasil 10** Sodium based alkaline EDTA/surfactant/conditioners  
PHYSICAL STATE: Powder | pH: Basic
- Ultrasil 11** Sodium based alkaline EDTA/surfactant/conditioners  
PHYSICAL STATE: Powder | pH: Basic

**ENZYME MEMBRANE CLEANERS..... 12**

- Ultrasil 63** Protease Enzyme and anionic – Use with UL 110/131/91  
PHYSICAL STATE: Liquid | pH: Neutral
- Ultrasil 67** Protease Enzyme and nonionic – Use with UL 110/131/91  
PHYSICAL STATE: Liquid | pH: Neutral
- Ultrasil 68** Protease Enzyme – Use with UL 110/131/91  
PHYSICAL STATE: Liquid | pH: Neutral

**ACID MEMBRANE CLEANERS ..... 16**

- Ultrasil 75** Phosphoric/Nitric blend  
PHYSICAL STATE: Liquid | pH: Acid
- Ultrasil 76** Lower Phosphoric/Nitric blend  
PHYSICAL STATE: Liquid | pH: Acid
- Ultrasil 78** Nitric/Citric – No Phosphoric  
PHYSICAL STATE: Liquid | pH: Acid

**SURFACTANT ADDITIVES ..... 20**

- Ultrasil 02** NPE-free, amine oxide/sulfonate  
PHYSICAL STATE: Liquid | pH: Neutral
- Ultrasil 09** NPE-free, nonionic surfactant blend  
PHYSICAL STATE: Liquid | pH: Neutral
- Ultrasil 83** NPE-free, anionic surfactant  
PHYSICAL STATE: Powder | pH: Neutral

**MISCELLANEOUS ..... 24**

- Ultrasil 84** Solvent based wetting agent  
PHYSICAL STATE: Liquid | pH: Neutral
- Ultrasil OP** Peroxide cleaning booster used with Ultrasil 110/91/131  
PHYSICAL STATE: Powder | pH: Basic/Oxidizer
- Oxonia Active** Peracetic acid oxidizer  
PHYSICAL STATE: Liquid | pH: Acid/Oxidizer
- XY-12** Sodium Hypochlorite  
PHYSICAL STATE: Liquid | pH: Basic/Oxidizer
- Stone Remover** EDTA based alkaline additive  
PHYSICAL STATE: Liquid | pH: Acid

**SOAKS/PRESERVATIVES ..... 32**

- Ultrasil MP** Organic acid/anionic surfactant  
PHYSICAL STATE: Liquid | pH: Acid
- Ultrasil 205** Metabisulfite preservative  
PHYSICAL STATE: Powder | pH: Acid
- Filtrapure FG-BS** Metabisulfite anti-chlor and preservative liquid  
PHYSICAL STATE: Liquid | pH: Acid

