

Lavasol<sup>™</sup> 7 is an aggressive high pH (alkaline) low foaming cleaner formulated to remove silt, clay, particulate, biological, organic and other acid insoluble foulants. The most aggressive high pH cleaner in the Lavasol line, Lavasol<sup>™</sup> 7 is ideal for high organic and biological feed streams such as surface and municipal water. Formulated with select strong chelants, solubilizing and dispersing agents, Lavasol<sup>™</sup> 7 provides highly effective cleaning of heavily fouled membranes.

# Features / Benefits

- Low foaming formulation reduces foaming tendencies in CIP tank
- Effective on a wide range of foulants
- Compatible with all polyamide RO and NF membranes
- Can be used on most MF and UF membranes
- Liquid cleaner easily diluted to application strength
- Classified for use in membrane systems producing drinking water (ANSI/NSF Standard 60)

## Uses

- For use on reverse osmosis (RO), nanofiltration (NF), ultrafiltration (UF) and micro-filtration (MF) membranes
- Effective in removing biological slime and bacterial byproducts
- Very effective in dissolving organic materials, oils and greases

## **Specifications**

Appearance	Clear liquid	
pH (2% solution)	12.50 - 13.20	
Density (kg/liter)	1.20 - 1.30	Certified to NSF/ANSI 60



Pail: 5 gallon/18.9 liter Drum: 55 gallon/208 liter Tote: 275 gallon/1,040 liter

LIQUID MEMBRANE CLEANER

For special packaging options, please contact  $\ensuremath{\mathsf{PWT}}$  or your local distributor.



#### General Mixing & Application Instructions for Lavasol<sup>™</sup>7

- 1. Inspect all cleaning system components to include CIP tank, hoses, and cartridge filters. Flush or replace if necessary. Fill cleaning tank with RO permeate or DI water. Turn on agitator or tank recirculation pump.
- 2. Slowly add Lavasol™ to cleaning tank (1 gal [3.8 L] of Lavasol™ for every 50 gal [189 L] of water). Mix thoroughly. The solution pH should match product specification. If necessary, adjust pH with a membrane–approved chemical such as caustic, citric, sulfuric or hydrochloric acid. The solution should be heated up to 45°C to improve cleaning efficacy.
- 3. Circulate solution in the same direction as the feed flow. Typical circulation times are 30-90 minutes.\* PWT recommends cleaning each stage of the system separately. Maximum flow rate per pressure vessel is 40 gpm (152 Lpm) for 8-inch elements and 10 gpm (38 Lpm) for 4-inch elements. Maximum pressure for cleaning is 60 psig (4.2 kg/cm<sup>2</sup>).
- In cases of heavy fouling, divert the first 10-20% of cleaning solution to drain to prevent redeposition of removed solids.
- 5. Rinse with RO permeate before returning system to service. When returning unit to service, divert product water to drain until any residual cleaning solution has been rinsed from system.
- \*Depending on the nature of the fouling, a soak period may be necessary for optimum results. Please contact PWT or your local distributor for custom cleaning procedure, or consult PWT's Technical Bulletin 503 for further cleaning recommendations.

#### ProDose XPRT<sup>™</sup> – Scaling Prediction Software

ProDose XPRT<sup>™</sup> uses the most accurate scaling prediction calculations available to accurately determine effective antiscalant dosage, and cleaning chemical usage. The user can enter multiple cases to study various operating conditions, directly enter concentrate analysis, and select the best PWT product and dosage for the application.

ProDose XPRT<sup>™</sup> is available upon request only. Please contact your PWT representative for more information.

PWT Prodose	-	-	-		-				
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UNITS 1 US	TEMPERATURE Fahrenheit	PERMEATE FLOW 81.00	RECOVERY 75.0 %	ANTISCALANT SpectraGuard Liquid	DOSAGE 2.95 PPM	SOURCE Well Water	PROJECT NAME Project 1	CASE 1	
PROJECT		OVERVIEW CLIENT NAME: City of San Diego			MEASUREMENTS     PRESET UNITS: CGS Metric			U.S.	
. WATED		PROJECT NAME:	Project 1		TEMPERATURE:	Deg F	mean	•	
		PREPARED BY: DATE:	5/1/2016	•	FLOW RATES: MASS UNITS:	Gal/min Ib		•	
SYSTEM INFORMATIO		WATER TYPE:	Well Water	•				Enter	
CHEMICAL SELECTION		COMMENTS (OPTIO	NAL)		Cases	i Available)	Modified Date 5/27/2016		
CALCULATIO	INS				Selected Case D	Description		-8	
REPORT									



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