



Lavazol™ 1 is a low pH (acidic) liquid formulation, combining select chelants and solubilizing agents to remove metal hydroxides, carbonates, phosphates and other similar scales. Lavazol™ 1 provides broad spectrum scale removal, and is ideal for situations where limited information is available on foulant make-up. Combining Lavazol™ 1 with an alkaline cleaner such as Lavazol™ 2 for particulate and organic removal provides a comprehensive cleaning.

Features / Benefits

- Concentrated cleaner for most efficient shipping and handling
- Phosphate-free formula to reduce negative impact on the environment
- Buffered pH to maintain optimum cleaning performance throughout cleaning cycle
- Best results when used in a program that includes either Lavazol™ 2 or OptiClean™ B
- 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
- Formulated to dissolve inorganic precipitants from the membrane surface
- To chelate and remove oxides of iron and aluminum from the membrane surface

Specifications

Appearance	Clear liquid
pH (2% solution)	2.50 - 3.50
Density (kg/liter)	1.00 - 1.15



Packaging

Pail: 5 gallon/18.9 liter

Tote: 275 gallon/1,040 liter

Drum: 55 gallon/208 liter

For special packaging options, please contact PWT or your local distributor.

Lavazol™ 1
LIQUID MEMBRANE CLEANER

Lavasol™ LIQUID MEMBRANE CLEANER

General Mixing & Application Instructions for Lavasol™ 1

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/cm²).
4. In cases of heavy fouling, divert the first 10-20% of cleaning solution to drain to prevent re-deposition 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™ – Scaling Prediction Software

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

The screenshot displays the PWT ProDose XPRT software interface. At the top, there is a navigation bar with the PWT logo and several tabs: UNITS (US), TEMPERATURE (Fahrenheit), PERMEATE FLOW (81.00), RECOVERY (75.0%), ANTISCALANT (SpectraGuard Liquid), DOSAGE (2.95 PPM), SOURCE (Well Water), PROJECT NAME (Project 1), and CASE (1). Below this, a sidebar menu on the left contains icons for PROJECT INFORMATION, WATER QUALITY, SYSTEM INFORMATION, CHEMICAL SELECTION, CALCULATIONS, and REPORT. The main content area is divided into three sections: OVERVIEW, MEASUREMENTS, and COMMENTS (OPTIONAL). The OVERVIEW section contains input fields for CLIENT NAME (City of San Diego), PROJECT NAME (Project 1), LOCATION, PREPARED BY, DATE (5/1/2016), and WATER TYPE (Well Water). The MEASUREMENTS section includes dropdown menus for PRESET UNITS (CGS), TEMPERATURE (Deg F), FLOW RATES (Gal/min), and MASS UNITS (lb), along with an Enter button. The COMMENTS (OPTIONAL) section is a large empty text area. The bottom right section, titled TOTAL CASES (1 AVAILABLE), shows a table with one case listed: Case 1, Modified Date 5/27/2016. Below the table is a field for Selected Case Description.



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