

PRODUCT PROFILE

Serim[®] GUARDIAN[™] RESIDUAL PEROXIDE TEST STRIPS

WHAT does this product do?

Serim[®] GUARDIAN[™] Residual Peroxide Test Strips give a semi-quantitative indication that the peracetic acid/peroxide disinfectant concentration has been reduced to safe levels after rinsing the dialyzer, dialysis machine or water distribution system.

WHY should I use this product?

Disinfectants must be rinsed from the dialyzer to below known toxic levels within a rinse-out period established for the particular germicide. Residual disinfectant should be measured by a test of appropriate sensitivity according to a written procedure to ensure that the disinfectant level is below the recommended maximum residual concentration. Inadequately rinsed dialyzers can lead to acute reactions in the dialysis patient.^{3,4,5}

The peracetic acid/peroxide disinfectant concentration must be below the industry standard of 3 ppm prior to initiating dialysis.^{1,2,4}

Peracetic acid disinfectants contain peracetic acid, hydrogen peroxide and acetic acid. Peroxide is present at a higher concentration than peracetic acid, therefore when peroxide is less than 3 ppm, peracetic acid levels will be even lower.



WHERE do I use this product?

Use Serim GUARDIAN Residual Peroxide Test Strips to test rinse solution from any convenient port where the solution has passed through the dialyzer.

If a peracetic acid/peroxide disinfectant was used to disinfect the water system or dialysis machines, obtain a sample of rinse solution from any convenient port in the rinse line per manufacturer's instructions.

WHEN do I use this product?

Use Serim GUARDIAN Residual Peroxide Test Strips after completing the dialyzer rinse procedure and prior to initiating dialysis.

AAMI Standards state that the residual chemical disinfectant concentration be tested according to manufacturer's instructions.

HOW to use this product

Serim GUARDIAN Residual Peroxide Test Strips are supplied in ready-to-use form. When placed in contact with the sample according to the directions for use, (see below) the indicator pad changes color relative to the concentration of peracetic acid/peroxide disinfectant present.

Test Method	Qualitative	Semi-quantitative
Sample	Collect rinse solution from any convenient port after the solution has passed through the dialyzer.	Collect rinse solution from any convenient port after the solution has passed through the dialyzer.
Test Strip Technique	Immerse indicator pad into the rinse solution for 2 seconds, then remove and shake off excess sample.	Immerse indicator pad into the rinse solution for 2 seconds, then remove and shake off excess sample.
Results	Read immediately. If no color is immediately apparent the peroxide concentration is less than 1 ppm and further rinsing is not required.	Read the results 15 seconds after removing the sample by comparing the color of the indicator pad to the color blocks on the bottle label.

Store bottles of Serim GUARDIAN Residual Peroxide Test Strips at temperatures between 15°- 30°C (59°- 86°F).
The lot number and expiration date are printed on the bottom of each bottle.

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Ordering Information

Serim GUARDIAN Residual Peroxide Tests:
 ~ Product Code 5105 contains 6 bottles of 100 test strips

Related Products:

Serim GUARDIAN Peracetic Acid Test Strips (Product Code 5106) indicate the concentration (potency) of peracetic acid/peroxide present in the disinfectant.

SERIM GUARDIAN RESIDUAL PEROXIDE TEST STRIPS

Features	Benefits
Reliably detects 3 ppm residual peroxide concentration in rinse water	~ Meets the dialysis industry-accepted standard of 3 ppm or less for residual peroxide in rinse water from dialyzers, dialysis machines and RO machines disinfected with peracetic acid/peroxide-based disinfectants ~ Superior performance to traditional %off-label+peroxide tests such as starch paper which cannot detect peroxide until 100 ppm or more are present ⁶
Test is sensitive to 1 ppm of peroxide	~ Provides an extra margin of safety
Simple to interpret color blocks	~ Accurate and consistent results minimizes variation between readers ~ Color of indicator pad is directly compared to color blocks on bottle label
Labeled for dialysis use ⁴	~ No need to qualify an %off-label+test for dialysis use ~ No need to monitor changes in product performance from lot-to-lot
Ready-to-use strips	~ No preparation or mixing of reagents ~ No glass vials or sharps needed
Simple procedure	~ Simple, quick & reliable methods meet the industry-recommended level of 3 ppm or less ~ No calculations or %drop counting+needed
Quick results: ~ Qualitative results available immediately ~ Semi-quantitative results in 15-seconds	~ Allows quick initiation of dialysis procedure
Test strip can be immersed into sample or held in sample stream	~ Maximum convenience for user, no matter where a proper sample is most easily obtained
Each bottle clearly labeled with: ~ Lot number ~ Expiration date	~ Traceability of product from manufacturing to final user ~ Leaves no doubt as to the age or integrity of the product

References:

1. Renalin Cold Sterilant Information for Use sheet from Minntech ReSource CD, Version 1.0, 2001.
2. Product insert for Peracidin Dialyzer Reprocessing Concentrate, pg. 8, HDC Medical, Inc., Simpsonville, KY.
3. AAMI Standards and Recommended Practices, Dialysis, 2008 Edition, RD47- Reprocessing of Hemodialyzers. Association for the Advancement of Medical Instrumentation. Arlington, Virginia.
4. *Proper mechanisms for assuring disinfectant concentrations for use in hemodialysis.* Nephrol News Issues. 1999 Jun;13(6):18, 23, 27. Arduino MJ.
5. National News article, Nephrology News & Issues, August 2002, pg 10-11.
6. NANT Dialysis Technology . A Manual for Dialysis Technicians, 2nd Edition. (2000), page 255. National Association of Nephrology Technicians/Technologists, Dayton, OH.

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P.O. Box 4002, Elkhart, IN 46514-0002

(574)264-3440 ☎ FAX (574)266-6222 ☎ www.serim.com