

PRODUCT PROFILE



Serim™ MONITOR™ FOR CHLORINE POTENCY

WHAT does this product do?

Serim™ Monitor™ for Chlorine Potency strips measure free chlorine. The test gives a semi-quantitative indication that chlorine-based sanitizers have the appropriate concentration of free chlorine required for use in sanitizing food and food processing equipment.

WHY should I use this product?

In food processing, the concentration of chlorine can range from 1-ppm to 5000-ppm depending on the type of food being processed (meat, poultry, seafood, dairy, fruits, vegetables, eggs, etc...), the processing stage and federal (USDA¹, EPA², FDA³) or state regulations.

Using a free chlorine concentration that is too low may not thoroughly disinfect equipment.⁴ However, using an unnecessarily high concentration of chlorine “may apply unnecessary, undesirable, potentially unhealthy, or unlawful levels of disinfectant to water systems.”⁵ In addition, the free chlorine concentration in soaking tanks and foot baths is depleted by organic matter during use and needs to be monitored continually.⁶ “The goal is to develop cleaning/sanitizing methods that effectively rid the product, plant and equipment of soil and microorganisms for the least expenditure and effort”⁷ without overusing chlorine.⁸

Serim Monitor strips allow testing at various points-of-use in the food manufacturing industry and

yield quick answers as to whether the free chlorine concentration at a particular processing stage is present at an adequate concentration.

WHERE do I use this product?

Review the applicable regulations or manufacturer’s equipment instructions to determine the appropriate sampling point. Periodic samples may be required to determine that the chlorine potency remains at the desired level.

HOW to use this product

Serim Monitor 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 free chlorine. The strips yield a semi-quantitative method estimation of the free chlorine concentration with color block increments at 0, 25, 50, 100, 200 and ≥300-ppm.

Ordering Information

Serim Monitor™ for Chlorine Potency Strips
• Product Code 5148 - 1 bottle of 100 strips

Test Method	Immersion
Test Strip Technique	Immerse the indicator pad into the sample. Remove <i>immediately</i> & firmly shake to remove excess sample.
Results	Between 15 and 30 seconds after removing strip from sample, compare the color of the indicator pad to the color blocks on the bottle label. Match color at center of pad to the color block. Disregard color around outer edge of indicator pad.

Store bottles of Serim Monitor strips at temperatures between 15° - 30° C (59° - 86° F). This product has a use-life of 3 months after opening and the expiration date is printed on each bottle.

SERIM MONITOR™ FOR CHLORINE POTENCY FEATURES AND BENEFITS

FEATURES

BENEFITS

Designed specifically for the food processing industry	<ul style="list-style-type: none">• Color blocks at levels of importance to the food processing industry, unlike generic chlorine tests; i.e., swimming pool tests
Ready-to-use strips, simple procedure	<ul style="list-style-type: none">• No preparation or mixing of reagents• No calculations or “drop counting” needed
Quick, semi-quantitative results in 15 seconds	<ul style="list-style-type: none">• Simple, quick and reliable method
Simple to interpret color blocks	<ul style="list-style-type: none">• Accurate and consistent results minimize variation between readers• Color of indicator pad is directly compared to color blocks on bottle label
Color of indicator pad is stable at high chlorine concentrations	<ul style="list-style-type: none">• Indicator Pad does not bleach out if free chlorine concentration is >300-ppm
Strip results not affected by common water constituents	<ul style="list-style-type: none">• Confidence that any Positive result is due to free chlorine or other oxidants
Consistent color reactions	<ul style="list-style-type: none">• Results not affected by aging during the shelf life of the product
Each bottle clearly labeled with: <ul style="list-style-type: none">• Lot number• Unopened expiration date• Opened bottle use-life	<ul style="list-style-type: none">• Traceability of product from manufacturing to final user• Leaves no doubt as to the age or integrity of the product

REFERENCES:

1. Regulations of the Food & Drug Administration, Book 21 Code of Federal Regulations (21 CFR 173.315 and 21 CFR 178 Subpart B)
2. U.S. Department of Agriculture Regulations on Chlorine or Chlorine Compounds, Book 9 (9CFR Part 303 - Exemptions; 9 CFR.303.1.(e) (1) (i) (Meat); 9 CFR 381.10 (e) (3) (l) (E) (Poultry); 9 CFR 310.9;9 CFR 381.151 (b); 9 CFR 318.14; 9 CFR Part 318 Subpart A - General (9 CFR 318.17 and 318.23); 9 CFR 381 Subpart K
3. Regulations of the Environmental Protection Agency (EPA) on the Use of Chlorine or Chlorine Compounds in the Food Industry, Book 40 Code of Federal Regulations (40 CFR Part 180 and 40 CFR 141 and 142)
4. *Use of Chlorine-based Sanitizers & Disinfectants in the Food Manufacturing Industry.* ISBN 0-615-11245-S. Prepared by the Food Processing Center of the Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln. Chapter 2, pg 18.
5. *Ibid.*, Chapter 6, pg 76.
6. *Ibid.*, Chapter 1, pg 10.
7. *Ibid.*, Chapter 1, pg 12.
8. *Ibid.*, Chapter 2, pg 17.

The logo for Serim MONITOR features the word "Serim" in a stylized, bold, serif font with a green and white graphic element above the 'i'. To its right, the word "MONITOR" is written in a bold, green, sans-serif font with a trademark symbol.

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