

BIO-GUARD LAUNDRI-STAT T-513F

BIO-GUARD LAUNDRI-STAT T-513F is a highly concentrated chemical bacteriostat and fungistat for fabric treatment. It is recommended for use in hospitals, commercial and institutional laundries. BIO-GUARD LAUNDRI-STAT T-513F is effective against Staphylococcus aureus and Aspergillus niger. It is residual, remaining on treated fabrics to provide inhibitory action during use.

ACTIVE INGREDIENTS: Alkyl (C<sub>14</sub>, 90%; C<sub>12</sub>, 5%; C<sub>16</sub>, 5%)  
dimethyl dichlorobenzyl ammonium chloride 17.0%; bis (Tributyltin)  
oxide 4.0% TOTAL ACTIVE INGREDIENTS 21.0%

INERT INGREDIENTS: 79.0%  
100.0%

DIRECTIONS: Add two ounces of BIO-GUARD LAUNDRI-STAT T-513F per 100 pounds of dry laundry (this is approximately 2 ounces per 60 gallons of water in the wheel). For best results, BIO-GUARD LAUNDRI-STAT T-513F should be added as the last operation of the wash process; however, it is permissible to add LAUNDRI-STAT with the sour. The minimum running time should be five minutes. The laundry is then finished in the usual manner.

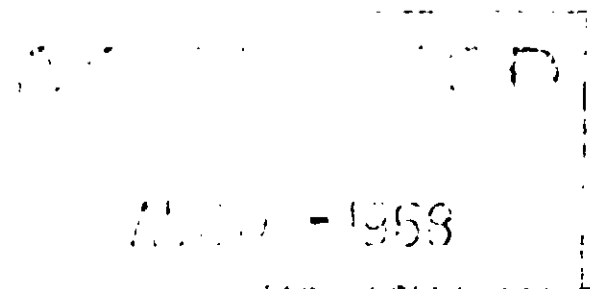
CAUTION: KEEP OUT OF REACH OF CHILDREN 14 POINT

Avoid contact with food or food products. Avoid getting in eyes or on skin. In case of contact, wash thoroughly with water. If irritation persists, get medical attention. Harmful if swallowed.

MANUFACTURED BY:  
BIO-LAB, INC.  
P. O. BOX 1489  
DECATUR, GA.

U.S.D.A REG. NO. 5185-

Net Contents:



ACCEPTED WITH COMMENTS

## Fabric Treatment with Bio-Guard Laundri-Stat T-513F

Objective: To determine bacteriostatic and fungistatic properties of fabric treated with Bio-Guard Laundri-Stat T-513F at a level corresponding to 2 ounces Laundri-Stat per 100 pounds dry cloth weight.

Procedure: An 11.9 gm sample from new unbleached denim cloth, previously washed in a home washer and dried in an electric home drier, was placed in a beaker with a total volume of 238 ml of water to which 1.5 ml of a 1:100 dilution of Laundri-Stat had been added. This represented a 2 ounce use level of Laundri-Stat per 100 pounds fabric. After 5 minutes contact time, the cloth was removed, squeezed by hand to remove excess water and suspended to dry in the air.

When the cloth had dried, it was cut in 1.5 cm squares and these were sterilized by autoclaving at 121°C for 15 minutes.

Staphylococcus aureus A.T.C.C. #6538 and Aspergillus niger were the test organisms used. The bacterium had been transferred daily for a minimum of three successive transfers prior to use and was used as a 24-hour culture. The culture was diluted 1:100 for use and contained  $10^6$  bacteria/ml. The fungal preparation contained 5,000,000 conidia per ml and the conidia were harvested from a 6-day culture grown on Sabourand dextrose agar.

Sabourand maltose agar was employed for testing with A. niger and A.A.T.C.C. bacteriostasis agar was used for testing with S. aureus.

The zone of inhibition test was performed by streaking the surface of an agar plate with a sterile cotton swab saturated with the test organism (approximately 0.2 ml). A 1.5 cm square of the test fabric was placed on the surface of the plate. Plates streaked with A. niger were incubated at room temperature for 4-5 days and S. aureus plates were incubated at 37°C for 48 hours. Zones of inhibition were then measured and recorded.