PROTOCOL TITLE: Neutralization Validation and Standard Guide for Assessment of Antimicrobial Activity Using a Time-Kill Procedure

PURPOSE: The purpose of this study was to determine the antimicrobial effectiveness of Chesson Labs Liquid Bandage against standard test organisms.

STUDY DESIGN: Organisms per USP <51>
Neutralization Validation per USP <1227>
Time Kill Procedure per ASTM E2315

RESULTS:

Organism	Common	Neutralization (% Recovery)	Population Count	30 Second % Reduction	30 Minute % Reduction	Controls
Staphylococcus aureus	Bacteria	> 70%	> 10^8	> 99.99%	> 99.99%	No Reduction
Escherichia coli	Bacteria	> 70%	> 10^8	> 99.99%	> 99.99%	No Reduction
Pseudomonas aeruginosa	Bacteria	> 70%	> 10^8	> 99.99%	> 99.99%	8.33%-No Reduction
Candida albicans	Yeast	> 70%	> 10^8	> 99.99%	> 99.99%	No Reduction
Aspergillus brasiliensis	Mold	> 70%	> 10^7	> 99.99%	> 99.99%	No Reduction

DISCUSSION:

Because of the immiscibility of the product with water [which is required only to show potential recovery of the test organism in the controls], the polymer film was reconstituted in the organic solvents (acetone and methyl ethyl ketone) based on the percent solid ratio (15%). The tested product therefore incorporated acetone and methyl ethyl ketone with all the other chemical reagents of the final product, in the correct ratios, for microbial testing.

CONCLUSIONS:

Results from an independent test lab indicate that the product has antimicrobial properties. The product consistently produced an average five-log kill of a $10^{7 \text{ to } 9}$ inoculum of all organisms identified in USP <51> [*Staphylococcus aureus, Escherichia coli, Pseudomonas aeruginosa, Candida albicans,* and *Aspergillus brasiliensis*] within 30 seconds of contact.