HJ Patterson Hall College Park, Maryland 20742-5815 301.405.1597 TEL 301.314.9081 FAX

November 19, 2001-

## Summary

Use of Sporicidin<sup>®</sup> Brand Disinfectant Solution and Household Bleach to Control Building Material Molds: A Comparative Study

George A. Bean & Jeremy Tilstra, University of Maryland

## Abstract

Dilute solutions of household bleach are frequently recommended to eradicate and prevent growth of mold fungi on building materials, including drywall. Within a 2-3 week period after building materials are treated with bleach, the mold fungi will reappear. To be an effective mold inhibitor, a disinfecting agent must possess a residual property because of recurring outbreaks of mold growth. There have been limited investigations on alternative mold inhibiting compounds. We tested Sporicidin<sup>®</sup> Disinfectant Solution (EPA Reg. No. 8383-3) and household bleach to control growth of three mold fungi, two mycotoxin-producing organisms (Stachybotrys chartarum and Chaetomium globosum) and Aspergillus niger.

## Conclusions

Sporicidin® Disinfectant Solution was more effective than household bleach in controlling common mold fungi found in building materials, including Stachybotrys chartarum, Chaetomium globosum and Aspergillis niger

Household bleach in the dry state was not effective against any of the 3 fungi tested. In the wet state, it was effective against 2 of the 3 fungi but had no effect against Chaetomium, a toxigenic mold fungi commonly found on building materials. Sporicidin® Disinfectant Solution was effective in both dry and wet states against all 3 fungi.

Sporicidin<sup>®</sup> Disinfectant Solution provides a residual effect that inhibits mold growth after it dries on surfaces. In an ongoing study, <u>Sporicidin is still exhibiting continuous residual activity</u> against these organisms after 4 months.

Bleach appears to lack any residual inhibitory characteristic.

Submitted by:

George A. Bean, Ph.D.

Professor

Department of Cell Biology and Molecular Genetics