



Volume \_\_\_\_\_

**FINAL REPORT**  
**GERMICIDAL SPRAY TEST**  
***Stachybotrys chartarum***

**Test Agent: SAN-A-SAFE**

**Data Requirements**  
**EPA Guidelines 810.2100 (c), (d), (e)**

**Author**  
**Angela L. Hollingsworth**

**Study Completion Date**  
**June 30, 2006**

**Performing Laboratory**  
**MICROBIOTEST**  
**105 Carpenter Drive**  
**Sterling, Virginia 20164**

**Laboratory Project Identification Number**  
**557-104**

**Submitted to:**

**COMPLIANCE STATEMENT**

This study meets the requirements for 40 CFR § 160 with the following exceptions:

- Information on the identity, strength, purity, stability, uniformity, and dose solution analysis of the test agent resides with the sponsor of the study.

The following technical personnel participated in this study:

Katherine J. Alvey, Lauren M. Martin, Travis R. Farley

Study Director: MICROBIOTEST

  
\_\_\_\_\_  
Angela L. Hollingsworth Date 06/30/06

Submitted by:

\_\_\_\_\_  
Name Title  
\_\_\_\_\_  
Signature Date

Sponsor: CLIFT INDUSTRIES, INC.

\_\_\_\_\_  
Name Title  
\_\_\_\_\_  
Signature Date

**MICROBIOTEST**

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**MICROBIOTEST**

**QUALITY ASSURANCE UNIT STATEMENT**

Title of Study: Germicidal Spray Test – *Stachybotrys chartarum*

The Quality Assurance Unit of MICROBIOTEST has inspected the Project Number 557-104 in compliance with current Good Laboratory Practice regulations, (40 CFR § 160).

The dates that inspections were made and the dates that findings were reported to management and to the study director are listed below.

| <u>PHASE<br/>INSPECTED</u> | <u>DATE OF<br/>INSPECTION</u> | <u>DATE REPORTED TO<br/>STUDY DIRECTOR</u> | <u>DATE REPORTED<br/>TO MANAGEMENT</u> |
|----------------------------|-------------------------------|--|--|
| Protocol                   | 05/09/06                      | 06/22/06                                   | 06/30/06                               |
| In Process                 | 05/09/06                      | 05/09/06                                   | 06/30/06                               |
| Final Report               | 06/22/06                      | 06/22/06                                   | 06/30/06                               |

  
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Nathan S. Jones, RQAP-GLP  
Quality Assurance Unit

06/30/06  
Date

**MICROBIOTEST**

## TEST SUMMARY

**TITLE:** Germicidal Spray Test – *Stachybotrys chartarum*

**STUDY DESIGN:** See Project Sheets (Appendix I)  
See signed protocol (Appendix II)  
This study was performed according to the signed protocol and project sheets issued by the Study Director.

### TEST MATERIALS SUPPLIED BY THE SPONSOR OF THE STUDY:

1. SAN-A-SAFE, Lot No. 31406D, received at MICROBIOTEST 03/16/06, and assigned DS No. 8147.
2. SAN-A-SAFE, Lot No. 31406E, received at MICROBIOTEST 03/16/06, and assigned DS No. 8148.

**SPONSOR:**

**MICROBIOTEST**

## TEST CONDITIONS

Challenge microorganism:

*Stachybotrys chartarum*, ATCC 9182

Active ingredient in test product:

Citric acid

Neutralizer used:

Potato Dextrose Yeast Broth containing 0.5% sodium thiosulfate

Contact time:

One minute

Contact temperature:

25±1C (26C)

Dilution:

Received ready to use

Test Agent Application:

Each glass slide was sprayed until thoroughly wet, using 3 pumps, at a distance of 5" from the inoculated carrier surface and remained undisturbed until the completion of the contact time.

### **TEST CONDITIONS (continued)**

#### **Media and reagents:**

Potato Dextrose Yeast Agar

Potato Dextrose Yeast Broth containing 0.5% sodium thiosulfate

Phosphate Buffered Saline

Phosphate Buffered Saline containing 1% Polysorbate 80

Sterile saline

### **STUDY DATES AND FACILITIES**

The laboratory phase of this test was performed at MICROBIOTEST, 105 Carpenter Drive, Sterling, VA 20164, from 05/09/06 to 05/22/06. The study director signed the protocol 04/19/06. The study completion date is the date the study director signed the final report.

All changes or revisions of the protocol were documented, signed by the study director, dated and maintained with the protocol.

### **RECORDS TO BE MAINTAINED**

All testing data, protocol, protocol modifications, test material records, the final report, and correspondence between MICROBIOTEST and the sponsor will be stored in the archives at MICROBIOTEST, 105 Carpenter Drive, Sterling, VA 20164 or in a controlled facility off-site.

**MICROBIOTEST**

## RESULTS

Results are presented in the Table. The challenge fungus was confirmed by wet mount identification and colony morphology to be consistent with *S. chartarum*. The sterility control exhibited no growth. The viability and neutralizer effectiveness controls exhibited growth. An average of 69 colony forming units (CFU) of *S. chartarum* were added to the Neutralizer Effectiveness Control. The carrier counts averaged  $5.2 \times 10^5$  CFU/carrier. The inoculum counts averaged  $6.5 \times 10^7$  CFU/mL. The pre-test inoculum counts averaged  $9.0 \times 10^7$  CFU/mL.

Table

### Test Results

Results Expressed as Number of Tubes Exhibiting Growth / Total Number of Tubes

| Challenge microorganism | Lot No.<br>31406D | Lot No.<br>31406E |
|-------------------------|-------------------|-------------------|
| <i>S. chartarum</i>     | 0/10              | 0/10              |

## CONCLUSIONS

When tested as described, SAN-A-SAFE passed the Germicidal Spray Test when *S. chartarum*, inoculated onto glass slides, was exposed to the test material for 1 minute at 26C. All of the controls met the criteria established for a valid test. These conclusions are based on observed data.

**MICROBIOTEST**