

CONFIDENTIAL FINAL REPORT SENT VIA E: MAIL

**STUDY TITLE:**  
**Virucidal Suspension Effectiveness Test**  
**Avian Influenza**  
**Research and Development**

SPONSOR: EMERGENCY FILTRATION PRODUCTS, INC.

SPONSOR'S REPRESENTATIVE: Douglas Beplate

STUDY IDENTIFICATION: MICROBIOTEST, Project No. 592-101 (refer to signed protocol)

TEST AGENT:

NAME	RECEIPT DATE	DS NO.	Dilution Tested
OAT 1	05/03/06	8232	Ready to Use Contents of both sample containers vortexed vigorously and combined.
OAT 2	05/03/06	8233	

ACTIVE INGREDIENT: NP2

CHALLENGE VIRUS: Avian influenza virus, Type A, (H9N2), Turkey/Wis/66; SPAFAS

HOST: Embryonated chicken eggs, BE Eggs

EXPOSURE TIMES: 1 minute and 5 minutes

DILUTION: Ready to use

CONTACT  
TEMPERATURE: 21C

ORGANIC LOAD: Challenge virus contained  $\leq 1\%$  organic load.

RESULTS: Results are presented in Tables 1 – 4. The embryo infectious/lethal dose per mL (EID/ELD<sub>50</sub>/mL) was determined for the test formulation and appropriate control data using the method of Reed and Muench; 1938. Host eggs were found to be viable and the dilution media was sterile.

Log<sub>10</sub> reduction was calculated using the following equation:

$$\text{Log}_{10} (\text{Plate Recovery Control}) - \text{Log}_{10} (\text{Test Results}) = \text{Log}_{10} \text{Reduction}$$



**RESULTS (continued):**

**Table 1  
Test Results**

Dilution	OAT 1 / OAT 2 1 minute	OAT 1 / OAT 2 5 minutes
10 <sup>-2</sup>	0 0 0 0	0 0 0 0
10 <sup>-3</sup>	0* 0 0 0	0 0 0 0
10 <sup>-4</sup>	0 0 0 0	0 0 0 0
10 <sup>-5</sup>	0 0 0 0	0 0 0 0
10 <sup>-6</sup>	0 0 0 0	0 0 0 0
10 <sup>-7</sup>	0 0 0 0	0 0 0 0
EID/ELD <sub>50</sub> /mL	≤10 <sup>1.50</sup>	≤10 <sup>1.50</sup>

**Table 2  
Control Results**

Dilution	Avian Influenza virus (EID/ELD <sub>50</sub> /mL) Virus Suspension Control	Host Viability Control
10 <sup>-2</sup>	++++	0 0 0 0
10 <sup>-3</sup>	++++	
10 <sup>-4</sup>	++++	
10 <sup>-5</sup>	++++	
10 <sup>-6</sup>	++++	
10 <sup>-7</sup>	++++	
EID/ELD <sub>50</sub> /mL	≥10 <sup>7.50</sup>	

Key: + = Avian influenza virus infected embryos were detected, hemagglutination observed.

0 = No Avian influenza virus infected embryos were detected, no hemagglutination observed, viable embryo, no toxicity observed.

0\* = Non viable embryo, no hemagglutination observed.



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RESULTS (continued):

**Neutralizer Effectiveness and Toxicity-Related Controls**  
Table 3

	Neutralizer Effectiveness	Toxicity	Toxicity-related viral interference control
10 <sup>-2</sup>	++++	0000	++++
10 <sup>-3</sup>	++++	0000	++++
10 <sup>-4</sup>	++++	0000	++++

Key: + = Avian influenza virus infected embryos were detected, hemagglutination observed.  
 0 = No Avian influenza virus infected embryos were detected, no hemagglutination observed, viable embryo, no toxicity observed.  
 0\* = Non viable embryo, no hemagglutination observed.

**Table 4**  
**Log<sub>10</sub> Reduction**

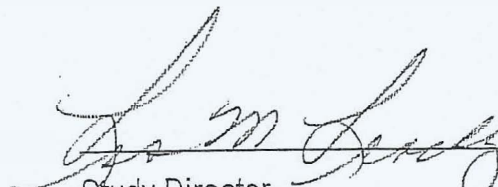
OAT 1 / OAT 2	Test Results (EID/ELD <sub>50</sub> /mL)	Virus Suspension Control (EID/ELD <sub>50</sub> /mL)	Log <sub>10</sub> Reduction
1 minute	≤10 <sup>1.50</sup>	≥10 <sup>7.50</sup>	≥6.00
5 minutes	≤10 <sup>1.50</sup>	≥10 <sup>7.50</sup>	≥6.00

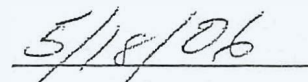
**CONCLUSIONS:** When tested as described; OAT 1 / OAT 2 passed the Virucidal Efficacy Test when Avian influenza virus, containing ≤1% organic loading, was exposed to the test agent in suspension, for 1 minute at 21C.

When tested as described, OAT 1 / OAT 2 passed the Virucidal Efficacy Test when Avian influenza virus, containing ≤1% organic loading, was exposed to the test agent in suspension, for 5 minutes at 21C.

All controls met the criteria required for a valid test. These conclusions are based on observed data.



  
 Study Director

  
 Date

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