

## Test Report: Standard Test Method for Efficacy of Antimicrobial Agents against Viruses in Suspension using Human Herpes Virus (Herpes Simplex Virus – 1)

### Test Laboratory

### BluTest Laboratories Ltd

Robertson Incubator (Level 4)  
Robertson Building  
56 Dumbarton Road  
Glasgow, G11 6NU

### Identification of sample

Name of the product  
Manufacturer

### SAFE 4 CONCENTRATE GREEN

Safe Solutions Ltd, Wharton Green House, Bostock, Winsford,  
Cheshire, CW7 3BD  
2 March 2007  
Room temperature and darkness  
Not Known

Date of Delivery  
Storage conditions  
Active substances

### Test Method and its validation

Method

SAFE4 was diluted and 0.8 ml mixed with 0.1 ml virus suspension (DMEM + 5% FBS) and 0.1 ml sterile distilled water

Dilution-neutralization  
Neutralizer

Dulbecco's modified Eagles medium + 5% v/v foetal bovine serum at 4°C

### Experimental Conditions

Period of analysis  
Product diluent used  
Product test concentrations  
Contact times  
Test temperature  
Interfering substance  
Stability of mixture  
Temperature of incubation  
Identification of virus

5 – 13 November 2007  
Sterile hard water  
1.0 % V/V; 2.0 % V/V; 5.0% V/V  
5 minutes ± 10s;  
20°C ± 1°C  
0.6 g/l foetal bovine serum  
Precipitate absent throughout the test  
37°C ± 1°C + 5% CO<sub>2</sub>  
Human Herpes Virus-1 F1 strain ATCC VR-733/Vero cells

### Conclusion

SAFE 4 Concentrate Green at 1.0 % V/V retains virucidal activity at 5 minutes contact at 20°C under clean conditions (0,6 g/L protein as foetal bovine serum) for suspensions of Human Herpes virus-1 F1 strain ATCC VR-733.

Signed



Dr Chris Woodall  
Director, BluTest Laboratories Ltd  
Glasgow, UK  
24 June 2010

## SAFE 4 CONCENTRATE GREEN TESTED AGAINST HUMAN HERPES VIRUS-1

Exposure time	Replicate	Virus recovery		Cytotoxicity (5%)		5% Disinfectant		2% Disinfectant		1% Disinfectant	
		(TCID <sub>50</sub> /ml)		(TCID <sub>50</sub> /ml)		(TCID <sub>50</sub> /ml)		(TCID <sub>50</sub> /ml)		(TCID <sub>50</sub> /ml)	
		raw data		raw data		raw data		raw data		raw data	
5 min	1	5.67	<b>1.48E+07</b>	2.00	<b>3.16E+03</b>	2.00	<b>3.16E+03</b>	2.00	<b>3.16E+03</b>	1.00	<b>3.16E+02</b>
	2	5.67	<b>1.48E+07</b>	2.00	<b>3.16E+03</b>	2.00	<b>3.16E+03</b>	2.00	<b>3.16E+03</b>	1.00	<b>3.16E+02</b>
	3	5.50	<b>1.00E+07</b>	2.00	<b>3.16E+03</b>	2.00	<b>3.16E+03</b>	2.00	<b>3.16E+03</b>	1.00	<b>3.16E+02</b>
	4	4.83	<b>2.14E+06</b>	2.00	<b>3.16E+03</b>	2.00	<b>3.16E+03</b>	2.00	<b>3.16E+03</b>	1.00	<b>3.16E+02</b>
			<b>1.04E+07</b>		<b>3.16E+03</b>		<b>3.16E+03</b>		<b>3.16E+03</b>		<b>3.16E+02</b>
log			<b>7.02</b>	log	<b>3.50</b>		<b>3.50</b>		<b>3.50</b>		<b>2.50</b>
log difference							<b>3.52</b>		<b>3.52</b>		<b>4.52</b>
<b>Stock Virus (TCID<sub>50</sub>)</b>		5.83	<b>2.14E+07</b>								

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