

**Efficacy Bulletin**

# **Consume Eco-Lyzer**

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EPA Reg. No. 5741-24

**DISINFECTION DATA:****Test Method:** AOAC Use Dilution**Test Conditions:** 5% serum, 10 minute contact time, 200 ppm hard water, 20 C exposure temperature, 2 oz/gal dilution**Results:**

Test Organism	Sample	No. of Carriers Positive / Total
<i>Staphylococcus aureus</i>	A	0/60
	B	0/60
	C	0/60
<i>Salmonella enterica</i>	A	0/60
	B	0/60
	C	0/60
<i>Pseudomonas putrefaciens</i>	A	1/60
	B	0/60
	C	0/60

Test Organism	Replicate	CFU/Carrier	Ave. CFU/Carrier
<i>Staphylococcus aureus</i>	1	1.3x10 <sup>6</sup>	1.1x10 <sup>6</sup>
	2	5.2x10 <sup>5</sup>	
	3	1.5x10 <sup>6</sup>	
<i>Salmonella enterica</i>	1	1.5x10 <sup>6</sup>	1.1x10 <sup>6</sup>
	2	7.9x10 <sup>5</sup>	
	3	1.1x10 <sup>6</sup>	
<i>Pseudomonas putrefaciens</i>	1	3.4x10 <sup>5</sup>	2.9x10 <sup>5</sup>
	2	1.3x10 <sup>5</sup>	
	3	4.0x10 <sup>5</sup>	

**Bacteriostasis Control**

Test Organism	Sample	No. of Carriers Positive / Total
<i>Staphylococcus aureus</i>	A	0/60
	B	0/60
	C	0/60

**Conclusion**

According to the AOAC Use Dilution Test Method, Consume Eco-Lyzer demonstrates efficacy against *Staphylococcus aureus*, *Salmonella enterica*, and *Pseudomonas putrefaciens* at a 2 oz/gal dilution with an exposure time of 10 minutes.

## VIRUCIDAL ACTIVITY

**Test Method:** AOAC Use Dilution

**Test Conditions:** 5% serum, 5 minute contact time, 200 ppm hard water, 20 C exposure temperature, 2 oz/gal dilution

Virus	Dilution	Sample A	Sample B
Herpes Simplex Virus, Type 1	10 <sup>-1</sup>	PNS	PNS
	10 <sup>-2</sup>	CCCC	CCCC
	10 <sup>-3</sup>	----	----
	10 <sup>-4</sup>	----	----
	10 <sup>-5</sup>	----	----
	10 <sup>-6</sup>	----	----
	10 <sup>-7</sup>	----	----
	PFUD <sub>50</sub> /mL	≤10 <sup>1.50</sup>	≤10 <sup>1.50</sup>
Human Immunodeficiency Virus Type 1	10 <sup>-1</sup>	PNS	PNS
	10 <sup>-2</sup>	----	----
	10 <sup>-3</sup>	----	----
	10 <sup>-4</sup>	----	----
	10 <sup>-5</sup>	----	----
	10 <sup>-6</sup>	----	----
	10 <sup>-7</sup>	----	----
	CCID <sub>50</sub> /mL	≤10 <sup>1.50</sup>	≤10 <sup>1.50</sup>
Influenza A <sub>2</sub>	10 <sup>-1</sup>	PNS	PNS
	10 <sup>-2</sup>	----	----
	10 <sup>-3</sup>	----	----
	10 <sup>-4</sup>	----	----
	10 <sup>-5</sup>	----	----
	10 <sup>-6</sup>	----	----
	10 <sup>-7</sup>	----	----
	ELD/EID <sub>50</sub> /mL	≤10 <sup>1.50</sup>	≤10 <sup>1.50</sup>

## NEUTRALIZER EFFECTIVENESS/CYTOTOXICITY

Virus	Dilution	Neutralizer Effectiveness	Cytotoxicity
Herpes Simplex Virus, Type 1	10 <sup>-1</sup>	PNS	PNS
	10 <sup>-2</sup>	CCCC	CCCC
	10 <sup>-3</sup>	++++	0000
	10 <sup>-4</sup>	++++	0000
Human Immunodeficiency Virus Type 1	10 <sup>-1</sup>	PNS	PNS
	10 <sup>-2</sup>	++++	0000
	10 <sup>-3</sup>	++++	0000
	10 <sup>-4</sup>	++++	0000
Influenza A <sub>2</sub>	10 <sup>-1</sup>	PNS	PNS
	10 <sup>-2</sup>	++++	0000
	10 <sup>-3</sup>	++++	0000
	10 <sup>-4</sup>	+++*	0000

## VIRUCIDAL ACTIVITY Continued

### Control Results

Virus	Dilution	Plate Recovery	Column Titer	Virus Stock Titer
Herpes Simplex Virus, Type 1	10 <sup>-1</sup>	PNS	PNS	++++
	10 <sup>-2</sup>	++++	++++	++++
	10 <sup>-3</sup>	++++	++++	++++
	10 <sup>-4</sup>	++++	++++	++++
	10 <sup>-5</sup>	++++	++++	++++
	10 <sup>-6</sup>	++++	++++	++++
	10 <sup>-7</sup>	++ - -	+ - ++	++++
	10 <sup>-8</sup>	ND	ND	+++ -
	PFUD <sub>50</sub> /mL	≥10 <sup>7.00</sup>	≥10 <sup>7.33</sup>	≥10 <sup>8.33</sup>
Human Immunodeficiency Virus Type 1	10 <sup>-1</sup>	PNS		++++
	10 <sup>-2</sup>	++++		++++
	10 <sup>-3</sup>	++++		++++
	10 <sup>-4</sup>	++++		++++
	10 <sup>-5</sup>	++++		++++
	10 <sup>-6</sup>	++++		++++
	10 <sup>-7</sup>	++++		++++
	10 <sup>-8</sup>	ND		++++
	CCID <sub>50</sub> /mL	≥10 <sup>7.50</sup>		≥10 <sup>8.50</sup>
Influenza A <sub>2</sub>	10 <sup>-1</sup>	PNS	PNS	++++
	10 <sup>-2</sup>	++++	++++	++++
	10 <sup>-3</sup>	+++*	++++	++++
	10 <sup>-4</sup>	+++*	++++	+++*
	10 <sup>-5</sup>	++++	++++	++++
	10 <sup>-6</sup>	+++ -	+++ -	++++
	10 <sup>-7</sup>	+ - - -	- ++ -	++++
	10 <sup>-8</sup>	ND	ND	++ - -
	ELD/EID <sub>50</sub> /mL	10 <sup>6.50</sup>	10 <sup>6.77</sup>	10 <sup>8.00</sup>

### Conclusion

Consume Eco-Lyzer at 2 oz/gal demonstrates virucidal efficacy against Herpes Simplex Virus Type 1, Human Immunodeficiency Virus Type 1, and Influenza A<sub>2</sub> at a 5 minute exposure time in AOAC 200 ppm water hardness.