



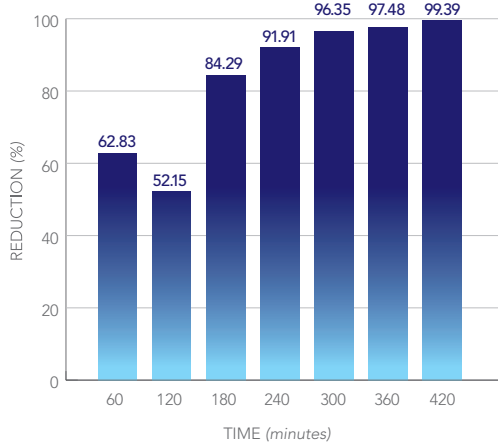
▶ GLP<sup>A</sup> TESTING AT AEROSOL RESEARCH AND ENGINEERING LABORATORIES  
**Virucidal efficacy of the OgenaShield Air & Surface Purifier by Puracenz<sup>B</sup> on Aerosols**

A GLP Certified study was conducted to evaluate the efficacy of the OgenaShield Air & Surface Purifier by Puracenz device in reducing aerosolized MS2 Bacteriophage<sup>C</sup> (MS2) in a large (16 m<sup>3</sup>) sealed aerosol test chamber. MS2 was aerosolized into the chamber, the purifier was then turned on<sup>D</sup> and triplicate air samples were collected at hourly intervals seven times.

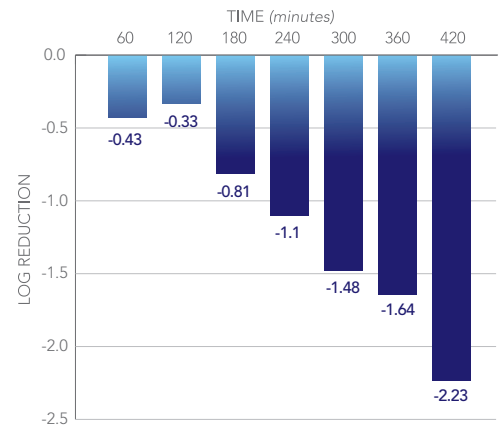
Despite the limitation of the device only being turned on after aerosolization (a GLP study requirement), the Puracenz unit was able to achieve the desired ion level of approximately 400 ions/cm<sup>3</sup><sup>E</sup> during the test. Under these conditions the reduction of the MS2 virus concentrations in the chamber was 99.39%.

Bio-aerosol - Test Microorganisms	Sample time (minutes)	Average Percentage of Reduction (%)	Average Log <sub>10</sub> Reduction
MS2 Bacteriophage	60	62.8	0.43
	120	52.1	0.33
	180	84.2	0.81
	240	91.9	1.1
	300	96.3	1.48
	360	97.4	1.64
	420	99.3	2.23

**AVERAGE PERCENTAGE REDUCTION (%)**



**AVERAGE LOG REDUCTION**



<sup>A</sup> GLP - Good Laboratory Practice or GLP is a set of principles intended to assure the quality and integrity of non-clinical laboratory studies that are intended to support research or marketing permits for products regulated by government agencies.

<sup>B</sup> This unit uses an advanced and newly patented form of Photocatalytic Oxidation and is not related in any way to systems that produce ions by way of an electrical field, such as BiPolar Ionizers, Pin Point Ionizers or any other system that generates ions through the use of an electrical field.

<sup>C</sup> An accepted surrogate for SARS-CoV-2, the virus that causes Covid-19, as well as for influenza and many other disease causing viruses. MS2 is significantly harder to kill than SARS-CoV-2, influenza viruses and is in the most difficult to kill classes of viruses.

<sup>D</sup> In real world operation the purifier would be running 24/7 so the room would already be charged with ions when the virus was aerosolized. Ref 'Sneeze Test' results.

<sup>E</sup> A level that the system can achieve over a 3000 sq ft area, as tested by Puracenz and Ogena.