J FERG GLOBAL

GERMINATOR™ MOBILE SANITIZING & DISINFECTING

Genesis and Shield Products of The Germinator, Wolfforth, Texas

COVID-19 Regulatory Overview and Test Results

Introduction and Overview

This document provides scientific information and data for persons that are interested in learning about the efficacy of The Germinator antimicrobial products against SARS-CoV-2 strain of virus, which causes the disease COVID-19.

Context in the Market

Conventional disinfection strategies and techniques

Disinfection is a common process by which bacteria and viruses are either killed and/or inhibited on surfaces.

- It works through a simple chemical target action, which lasts for only a few minutes and has no residual protection; the disinfectant may leave a sterilized surface clean but after a few minutes post-application, the surface may become vulnerable again to immediate recontamination.

- It leaves the surface completely open for contamination from bacteria and viruses after application and between disinfection cycles for whatever period is of interest, including days, weeks, or months when bacteria and virus outbreaks may become predominant.

- There are hundreds of effective disinfection products available, all with 99.99% kill claims. The vast majority of them do inhibit viruses, including SARS-CoV-2, the virus strain that causes COVID-19.

The Germinator technology functions in a way that is fundamentally different to the conventional disinfection processes described above. It provides on-going, residual protection against bacteria and viruses after application and is proven to last up to 90 days on treated surfaces. This is described as “dry state” efficacy in testing protocols and demonstrates that treated surfaces continue to inhibit growth of bacteria and viruses after the product has been applied.

The United States Environmental Protection Agency regulates what statements a company can make regarding disinfectant product efficacy against bacteria and viruses, and The Germinator is certified to make claims that it inhibits bacteria growth for up to 90 days. However, outdated regulations prevent The Germinator from making claims about virucidal activity and, therefore, proceeded to generate its own scientific data to demonstrate, particularly, efficacy of The Germinator, Genesis and Shield products against SARS-CoV-2 strain of virus.

Despite the regulatory limitations on product labelling on The Germinator products, our products have gone through rigorous testing against SARS-Cov-2 strain of virus in an independent world-class laboratory using multiple methodologies and these tests have confirmed a dramatic inhibition of the SARS-CoV-2 virus strain that causes COVID-19.

Independent Test Results

Tests conducted in 2021 at in independent world-class laboratory demonstrated that The Germinator technologies has an immediate inhibition of ≥ 99.98% of the virus strain causing COVID-19.

As of August 30, 2021, The Germinator technology demonstrated to have a residual inhibition rate on an inanimate surface of 99.8% of the virus strain that causes COVID-19.

Post-application, The Germinator technology continues to destroy bacteria and inhibit viruses, including SARS-CoV-2 strain of virus, for up to 90 days. This residual activity is groundbreaking.

					The Germinator Technology	
Lab	**Date**	**Test Method**	**Virus**	**Conditions**	**%**	**Log**
Analytical Lab Group – Midwest	30 August 2021	Evaluation of antiviral properties of a product using a virucidal suspension assay for Genesis 200 ppm	SARS-CoV-2 strain of virus	Immediate Kill (Wet)	≥ 99.98%	≥ 3.75
Analytical Lab Group – Midwest	12 February 2021	Virucidal efficacy of a disinfectant for use on inanimate environmental surfaces – Shield product	SARS-CoV-2 strain of virus	Residual Efficacy (Dry)	99.8	≥ 3.5
Analytical Lab Group – Midwest	30 August 2021	Virucidal efficacy for use on non-porous inanimate objects (glass) for a 30, 60, and 90 day timeframe – Shield product	SARS-CoV-2 strain of virus	Residual Efficacy (Dry)	30 days 69.1% reduction 60 days 76% reduction 90 days 51% reduction	30 days 0.51 60 days 0.62 90 days 0.31

How Laboratories Handle Testing Related to COVID-19

COVID-19 is the human disease caused by SARS-CoV-2 strain of virus (Severe Acute Respiratory Syndrome Coronavirus).

There is currently a scarcity of available testing laboratories that have the appropriate Biological Safety Level 3 (BSL-3) testing capabilities to handle SARS-CoV-2 strain of virus. The Analytical Lab Group – Midwest in Eagan, MN (now Element Materials Technology, Eagan, Minnesota) have a BSL-3 facility to conduct these tests on behalf of The Germinator. Therefore, we now have groundbreaking information demonstrating right at complete inhibition of SARS-CoV-2 strain of virus immediately after treatment with both Genesis and Shield products. In addition, we have demonstrated excellent continuing efficacy with the Shield product for 30, 60, and 90 day timeframes on a glass surface. Therefore, The Germinator business now has groundbreaking, cutting-edge scientific data to demonstrate disinfection technology from virucidal activity against SARS-CoV-2 strain of virus that is safe, effective, and has residual capability.