EnviroGuard PRO™ X:

Evidence Based Safety and Efficacy Summary

EnviroGuard PRO X is integrated system that delivers unparalleled air quality and environmental safety. This next generation technology provides the world's first simultaneous in-air and on-surface sanitisation through the synergy of advanced purification and filtering, with active Purox sanitisation, continuously assuring improved hygiene of indoor air and surfaces.

How it works

The device actively evaporates the Purox™ gel into the outbound airstream of the device. The active ingredient is hydrogen peroxide, this is a very effective anti-microbial that is used widely in healthcare environments. It is also created by sunlight in fresh air. The gel has an immediate sanitising effect on the air surrounding the device and also lands on surfaces, including hidden surfaces, where it has a similar sanitising effect.

The hydrogen peroxide is highly efficacious as a sanitiser but at levels that are completely safe to the room's occupants (see section below: Safety of Purox™ Gel).

The air is then returned through a 4 part filter, including an anti-microbial layer that kills bacteria, viruses and moulds before the air passes through a high efficient HEPA 13 filter removing particulates (99.97% at 0.3 µm)from the air and finally a carbon layer removing volatiles and odours from the air.

It is the rapid dispersion of the gel that makes the EnviroGuard PRO X uniquely efficient in improving indoor hygiene. The effect on the air is far more immediate than a filter only based system and the gel acts on surfaces that a filter only system has no impact on.

Evidence

EnviroGuard PRO X actively reduces airborne contaminants and pollutants such as moulds, particulates and VOCs with improved protection against a wide spectrum of viruses, bacteria and fungi in your workplace.

In certified third-party laboratory tests, EnviroGuard PRO X has been proven to reduce up to 99.99% of pathogens including Escherichia coli, Staphylococcus aureus, Staphylococcus albus, Candida albicans, and Pseudomonas aeruginosa.

Safety of Purox™ Gel
Validated 24 hour air monitoring study

Through the process of controlled evaporation Purox™ Gel releases a natural and active sanitising agent (hydrogen peroxide) into the environment, mimicking the compound generated naturally by UV sunlight. The sanitising agent is dispersed throughout the indoor air environment and actively breaks down harmful microorganisms and pollutants in the air and on surfaces. Hydrogen peroxide is odorless, colorless and safe to use in occupied spaces, and safely breaks down into oxygen (O_2) and water (H_2O) vapor. According to the Occupational Health and Safety Administration (OSHA), The National Institute for Occupational Safety and Health (NIOSH), and Safe Work Australia (SWA) exposure to one part per million (1.0ppm) of hydrogen peroxide as a TWA -Time Weighted Average (8hrs) which is considered safe throughout the day.

To further validate the safety of Purox™ Gel, a 24hr air monitoring study of the EnviroGuard PRO™ X with Purox™ Gel was performed by a 3rd-party unaffiliated test laboratory in a ~38m^3 (5.9m (L) x 2.35m (W) x 2.7m (H)) test room with temperature and humidity control. The Hydrogen peroxide was continuously monitored by two Dräger X-am® 5100 instruments (serial numbers ARFE-1025 and ARNJ-0402, with a detection limit 0.1ppm) which were positioned at 60cm and 170cm from the EnviroGuard PRO™ X device. On no occasion was hydrogen peroxide detected (instrument readout remained at 0.0ppm, ie. detection limit was not reached) by either of the two Dräger instruments over the 24hr air monitoring period.

24 Hour Air Monitoring Safety Validation of Purox™ Gel

Date	Time	Exposure	Dräger X-am® 5100 Hydrogen peroxide (ppm)*		Temp / Relative Humidity (°C / %)
			60cm from device	170cm from device	
6/07/2023	07:00	0hrs	0.0	0.0	19 / 74
6/07/2023	11:00	4hrs	0.0	0.0	17
6/07/2023	15:00	8hrs	0.0	0.0	16
6/07/2023	19:00	12hrs	0.0	0.0	14
6/07/2023	23:00	16hrs	0.0	0.0	12
7/07/2023	03:00	20hrs	0.0	0.0	12
7/07/2023	07:00	24hrs	0.0	0.0	9 / 74

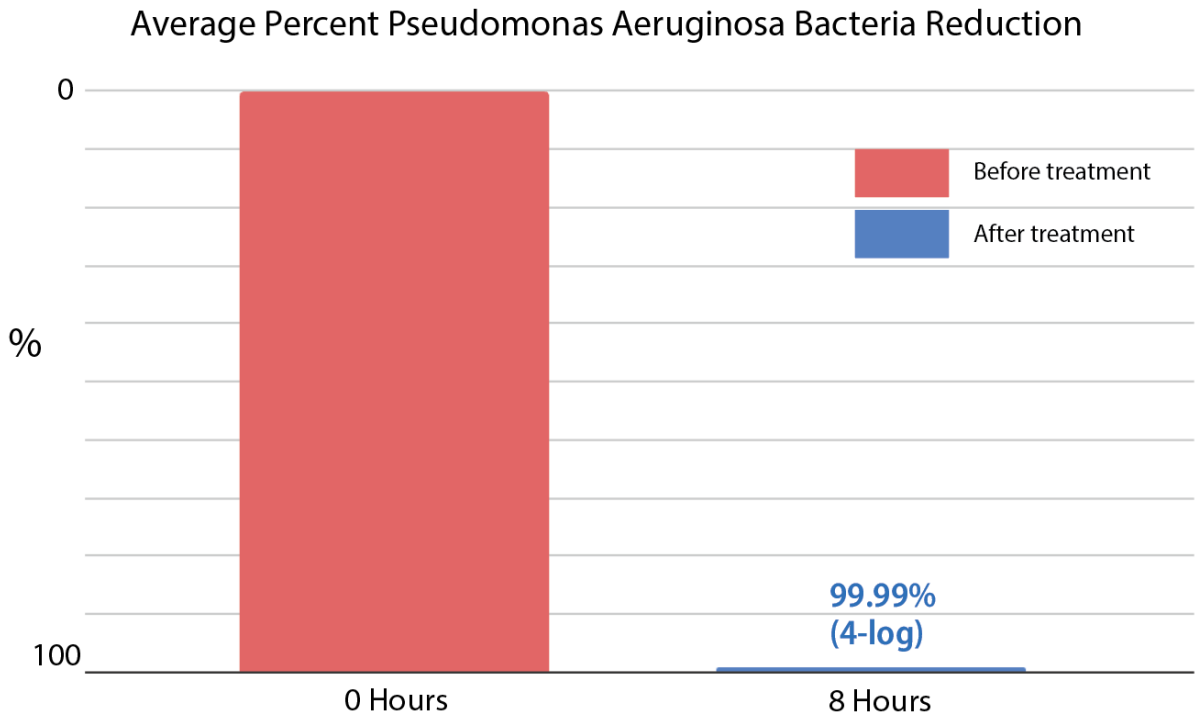
Testing performed at Eurofins BioPharma Product Testing – Sydney (Eurofins ams Laboratories Pty Ltd), 179 Magowar Road Girraween NSW 2145 Australia. Eurofins ams Laboratories Pty Ltd is licensed by the Australian Therapeutic Goods Administration for analysis and testing (Licence No. MI-2021-LI-08995-1 and GMP Certificate No MI-2022-LI06073-1), and registered with Food and Drug Administration USA (DUNS No 754742088 and Facility Establishment Identifier No 3006635869). Supporting evidence Chemical Consulting Laboratory, University of New South Wales - Safety Report on an Air-Purifier/Sanitiser Device EnviroGuard PRO X™ and Purox™ Gel (5.8% w/w Hydrogen Peroxide).

Pseudomonas Aeruginosa Bacteria

Reduction of Surface Contaminants

99.99%

Reduction after 8 hours of treatment
This study was based upon EN 17272:2020, EN 13697 and designed to evaluate the bactericidal activity (measured as log reduction) of the EnviroGuard PRO X using a Purox™ Gel.



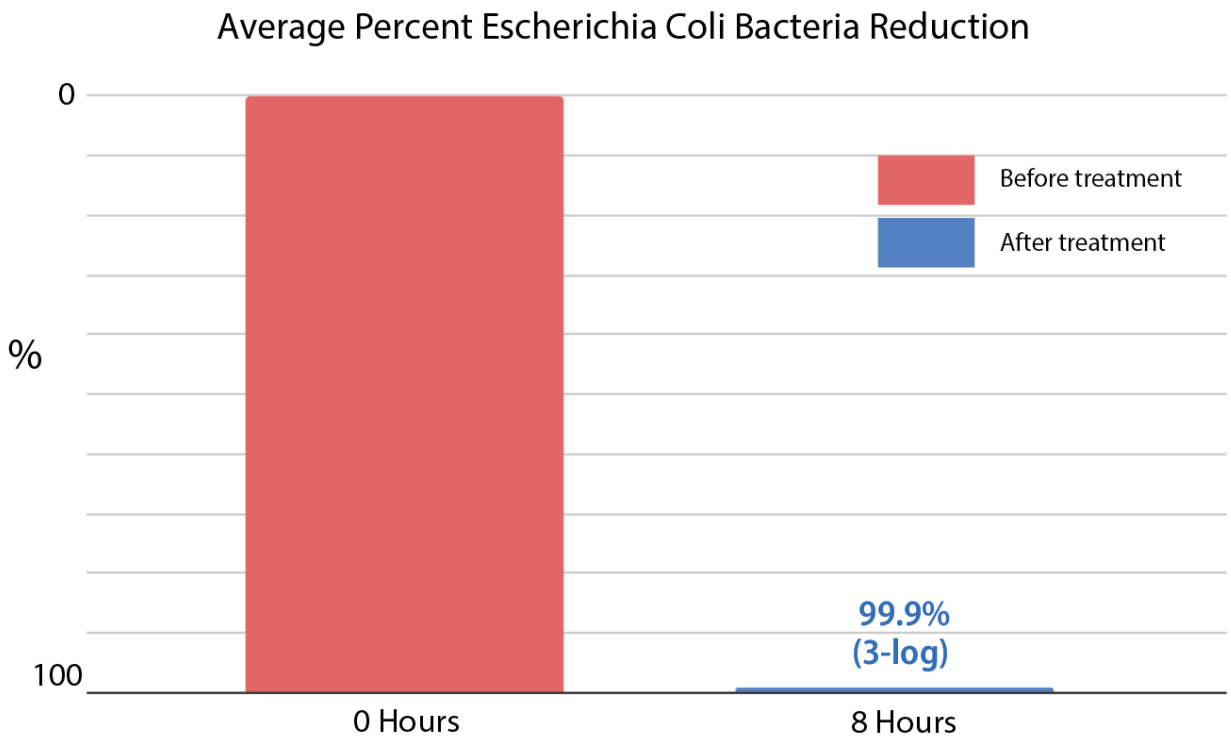
Testing performed at Eurofins BioPharma Product Testing – Sydney (Eurofins ams Laboratories Pty Ltd), 179 Magowar Road Girraween NSW 2145 Australia. Eurofins ams Laboratories Pty Ltd is licensed by the Australian Therapeutic Goods Administration for analysis and testing (Licence No. MI-2021-LI-08995-1 and GMP Certificate No MI-2022-LI06073-1), and registered with Food and Drug Administration USA (DUNS No 754742088 and Facility Establishment Identifier No 3006635869).

Escherichia Coli Bacteria

Reduction of Surface Contaminants

99.9%

Reduction after 8 hours of treatment
This study was based upon EN 17272:2020, EN 13697 and designed to evaluate the bactericidal activity (measured as log reduction) of the EnviroGuard PRO X using a Purox™ Gel.



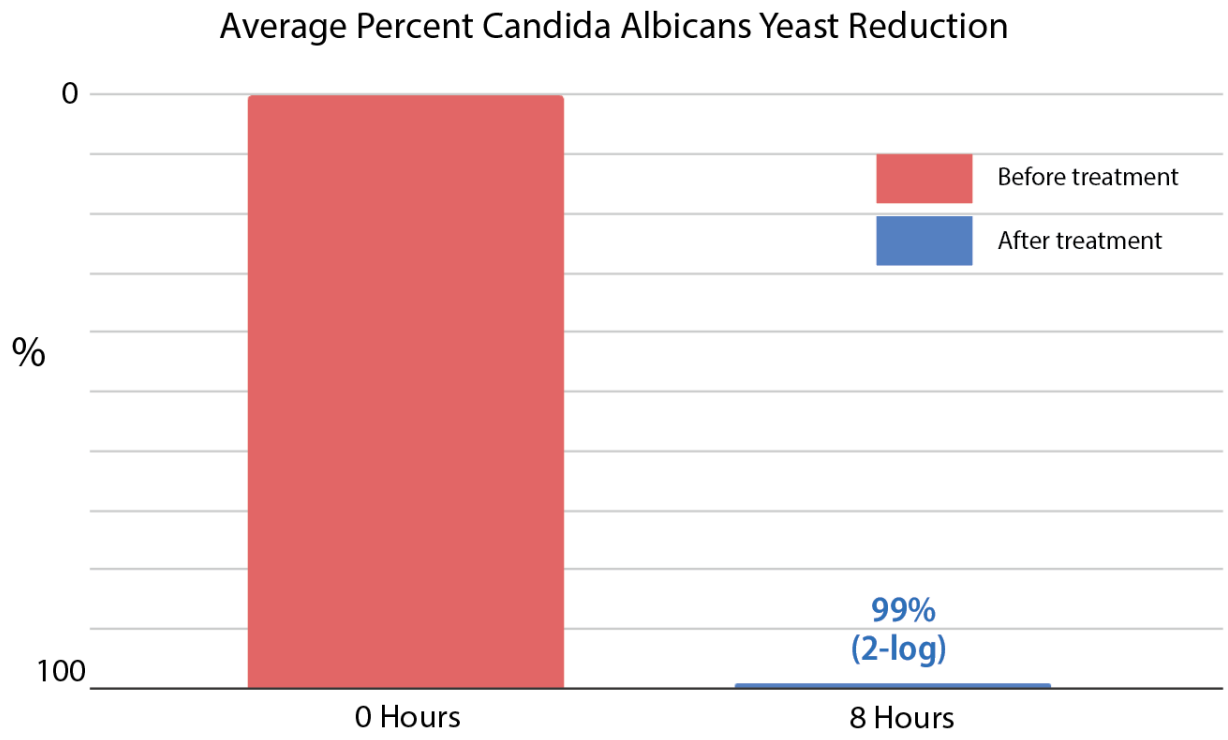
Testing performed at Eurofins BioPharma Product Testing – Sydney (Eurofins ams Laboratories Pty Ltd), 179 Magowar Road Girraween NSW 2145 Australia. Eurofins ams Laboratories Pty Ltd is licensed by the Australian Therapeutic Goods Administration for analysis and testing (Licence No. MI-2021-LI-08995-1 and GMP Certificate No MI-2022-LI06073-1), and registered with Food and Drug Administration USA (DUNS No 754742088 and Facility Establishment Identifier No 3006635869).

Candida Albicans Yeast

Reduction of Surface Contaminants

99%

Reduction after 8 hours of treatment
This study was based upon EN 17272:2020, EN 13697and designed to evaluate the yeasticidal activity (measured as log reduction) of the EnviroGuard PRO X™ using a Purox™ Gel.



Testing performed at Eurofins BioPharma Product Testing – Sydney (Eurofins ams Laboratories Pty Ltd), 179 Magowar Road Girraween NSW 2145 Australia. Eurofins ams Laboratories Pty Ltd is licensed by the Australian Therapeutic Goods Administration for analysis and testing (Licence No. MI-2021-LI-08995-1 and GMP Certificate No MI-2022-LI06073-1), and registered with Food and Drug Administration USA (DUNS No 754742088 and Facility Establishment Identifier No 3006635869).

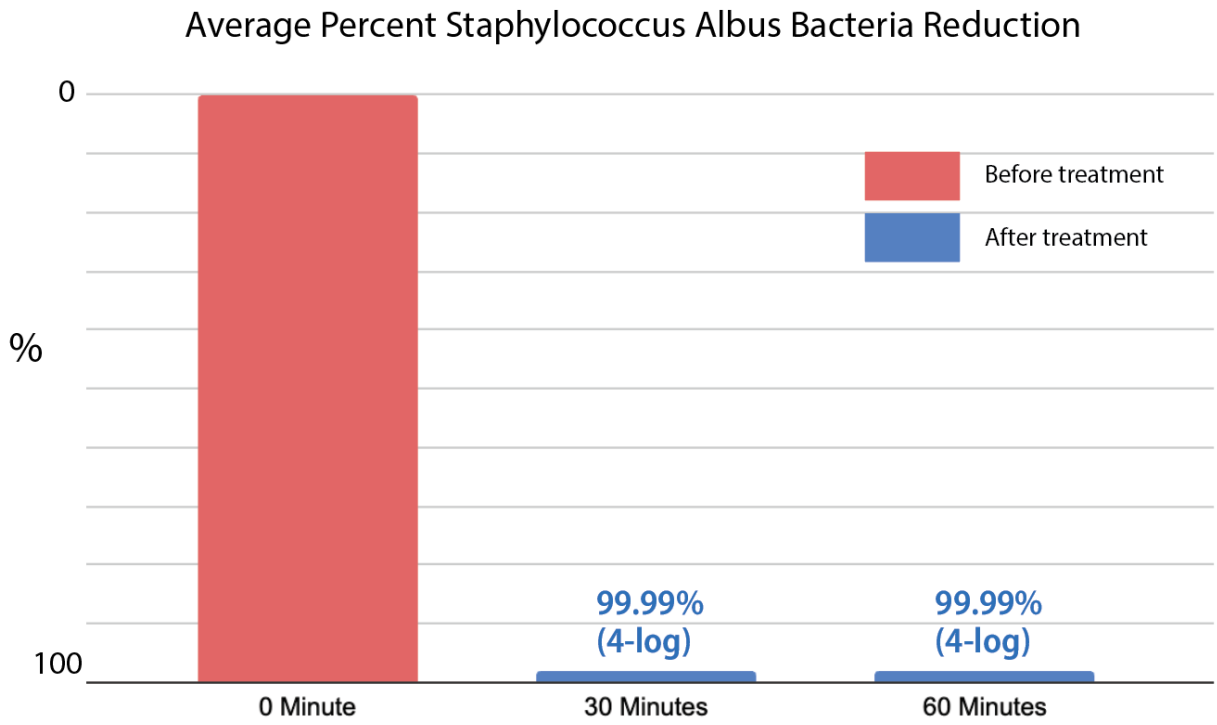
Staphylococcus Albus Bacteria

Reduction of Airborne Contaminants

99.99%

Reduction after 30 minutes of treatment

This study was a simulated field test (including neutraliser) performed in a 20m^3 aerosol chamber (at a rate of 0.21m/m^3) to determine the air disinfection effect of the sanitising Purox™ Gel using Technical Standard for disinfection GB 27948-2020 (Version 2002).



Testing performed at ICAS Testing Technology Service (Shanghai) Co. Ltd. The sample was determined to be qualified and met the requirements specified in the Technical Standard for disinfection GB 27948-2020 (Version 2002). Net log reduction.

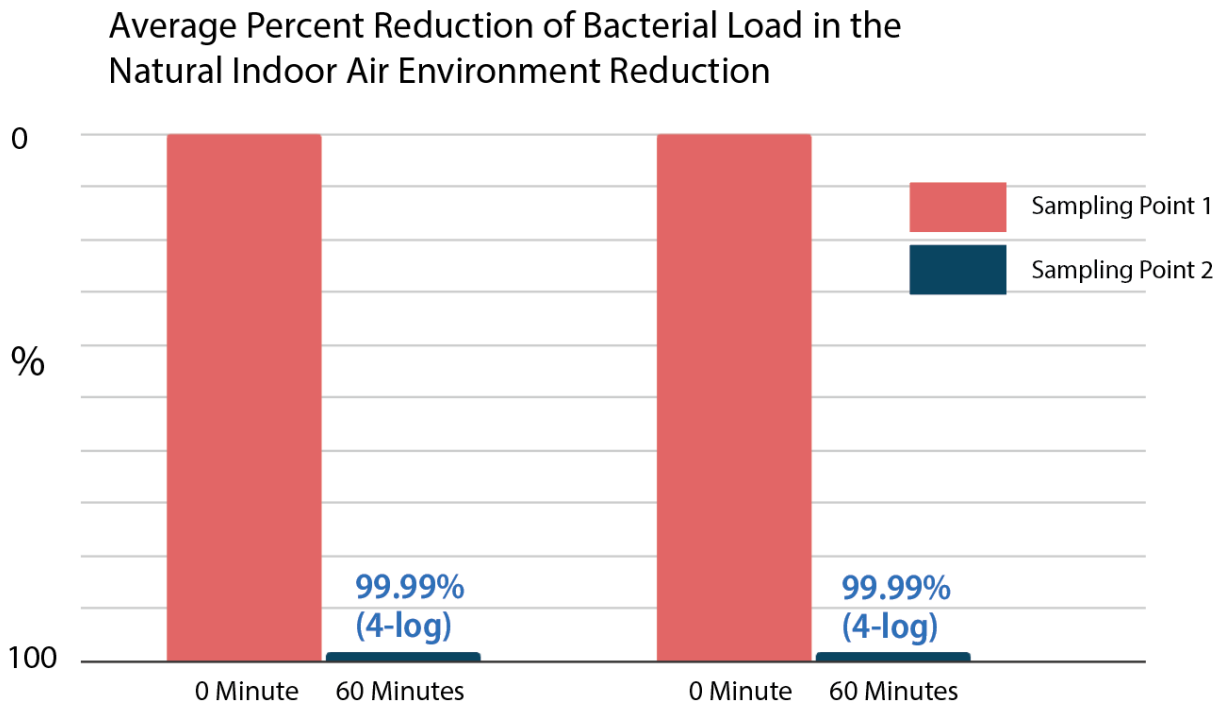
Reduction of Bacterial Load in the Natural Indoor Air Environment

Reduction of Airborne Contaminants

99.99%

Reduction after 60 minutes of treatment

This study was a simulated field test to determine the bacterial load in the natural air environment and air disinfection effect of the sanitising Purox™ Gel using Technical Standard for disinfection GB 27948-2020 (Version 2002). This study was performed in a 30m^3 air chamber (at a rate of 0.21mL/m^3) for 60mins. The decrease in bacterial load in the natural air environment was determined by sampling before air disinfection (0mins) and post disinfection (60mins).



Testing performed at ICAS Testing Technology Service (Shanghai) Co. Ltd. The sample was determined to be qualified and met the requirements specified in the Technical Standard for disinfection GB 27948-2020 (Version 2002). Net log reduction.