

 **SAN-AIR**TM perfect air 

SAN-AIRTM TECHNOLOGY EFFICACY and VALIDATIONS

SAN-AIRTM provides the highest indoor air quality people can breathe 24/7 by:

- employing cutting edge, sustainable technology
- using natural ingredients extracted from plants
- completely reducing the airborne pathogens that can make people sick

PRODUCT EFFICACY

SAN-AIR™ gels and liquids have been independently tested and validated to work against pathogens.

BACTERIA

- Bacteria travels in the air independently or on particles, such as dust
- It reproduces by splitting to form more bacteria
- SAN-AIR surrounds the bacteria and disrupts its membrane
- The membrane is unable to reform, stopping the bacteria's ability to reproduce

MOULD

- Mould travels in the air independently or on particles, such as dust and pollen
- As it travels it continues to release spores
- SAN-AIR surrounds mould
- Mould and spores are blocked from receiving oxygen
- Mould and spores die without leaving any mycotoxins

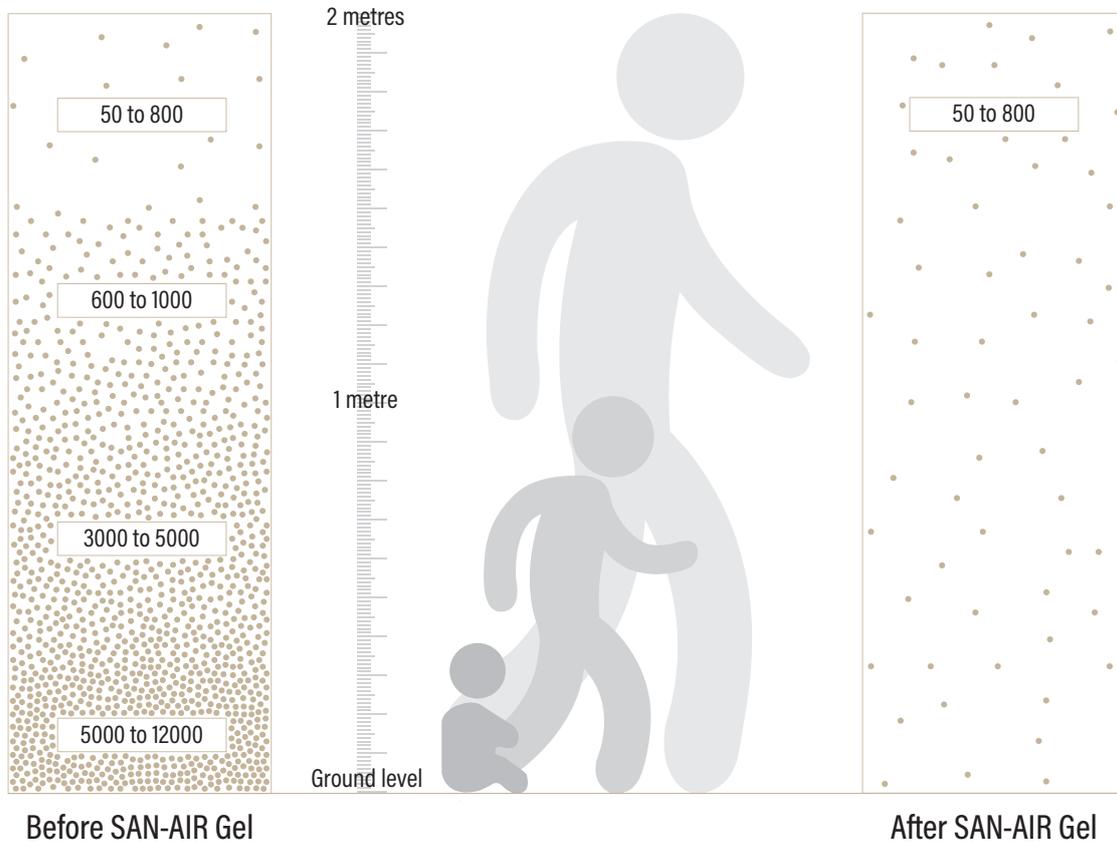
VIRUS

- Viruses need to attach to a host, such as bacteria, in order to survive
- Once they attach, the virus is able to multiply
- SAN-AIR surrounds the virus and stops it from being able to attach to a host
- This causes the virus to die off naturally

INDOOR AIR QUALITY

Australian Standards AS/NZS 3666.4 for Indoor Air Quality are set at 1000 counts of colony forming units (CFU) per m³ of air. SAN-AIR decreases indoor bio-burden to levels well below current Australian standards for indoor air.

BACTERIA / MOULD COUNTS



VIRUS ERADICATION

The SAN-AIR technology uses a 3-pronged approach to eradicating viruses.

1. Kills the bacteria host of the virus

For over 100 years science has proven that viruses need to host in bacteria in order to survive. SAN-AIR eradicates the bacteria as well as the virus they can be hosting. (See bacteria efficacy test results overleaf)

2. Removes the envelope of the virus

EUROFINS | AMS results show that the SAN-AIR technology in gel and liquid form, kill the virus when tested with methodology which measures the removal of the envelope of the COVID-19 virus.

- **SAN-AIR V3R Liquid - passed TGA COVID-19 test - 99.995% kill on contact**
- **SAN-AIR V3R Gel - passed TGA COVID-19 test - 99.995% kill in 10 minutes**

3. Impacts the infectious genes of the virus

INNOLAB results show that both the SAN-AIR gel and liquid work on the infectious genes of COVID-19. Testing methodology used two methods of exposure:

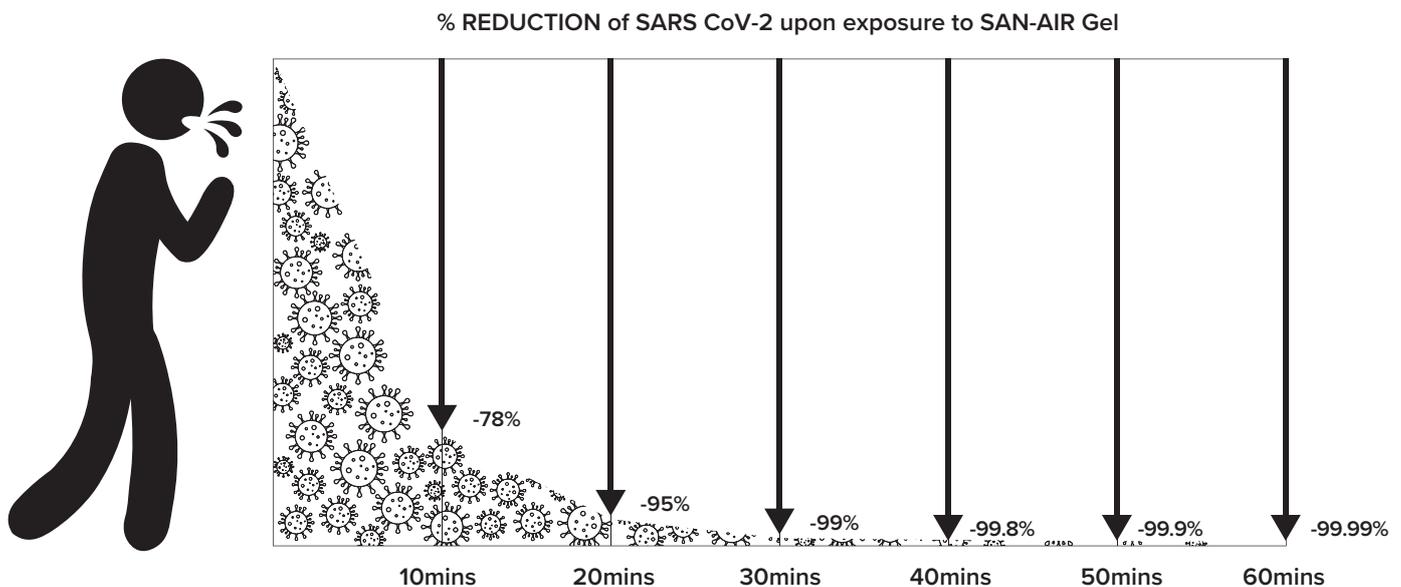
- a) Liquid product was mixed to the sample so that the sample was homogeneously exposed to the active compound.
- b) Gel product was exposed to the surface portion of the sample.

Overall, the product showed high efficacy to degrade the Sars CoV 2 virus particle. The use of SAN-AIR gel and liquid products provide fast and continuous impact against COVID-19.

AIRBORNE VIRUS EFFICACY

The University of NSW (UNSW) has undertaken the world's first true aerosolised test, measuring the efficacy of anti-microbial agents against aerosols of pathogenic bacteria, fungus and a coronavirus.

Based on a new assay, aerosols containing Murine hepatitis virus MHV-1 (surrogate of SARS CoV-2) were introduced into a glass chamber and exposed to SAN-AIR Reactive Gel. The gel vapours came into contact with the suspended aerosols, resulting in a reduction of up to 78% in 10 minutes.



INDEPENDENTLY TESTED & VALIDATED

SAN-AIR Gel Formulation

Test Description	Organisms Tested	Laboratory (*TGA Accredited)	Result
Airborne Bacterial Efficacy	Micrococcus Luteus Staphylococcus Capitis Staphylococcus Hominis	AMS* 0606604	55% kill every 30 minutes
Airborne Fungicidal Efficacy Disinfectant test TGA Order 54/54A	Trichophyton mentagrophytes spores ATCC9533	AMS* 0710795/2	99.9% kill in 60 minutes
Airborne Sporacidal Efficacy Disinfectant test TGA Order 54/54A	Bacillus Subtilis ATCC 19659	AMS* 0710795/1	99.99% kill in 6 hours
Airborne Bacterial Efficacy	Escherichia Coli Pseudomonas Aeruginosa Staphylococcus Aureas (Golden Staph)	Chemsil CAW/M/0908/C/003	83.5% kill in 60 minutes 99% kill in 120 minutes
Airborne Fungicidal Efficacy (Mould)	Apergillus Niger	Chemsil CAW/M/0210/C/04	46.4% kill in 60 minutes 62.5% kill in 120 minutes
TGA Disinfectant Test, Option C	Escherichia coli (ATCC 8196)	UNSW Global J084085	99.999% kill in 5 minutes 99.999% kill in 30 minutes
	Staphylococcus aureus (ATCC 4163)		99.954% kill in 5 minutes 99.978% kill in 30 minutes
	Listeria monocytogenes (UNSW 030800)		99.999% kill in 5 minutes 99.999% kill in 30 minutes
	Micrococcus luteus (NCTC 7743)		76.390% kill in 5 minutes 95.921% kill in 30 minutes
SARS-CoV-2 efficacy	COVID-19 RdRP gene	KALGen Innolab	50% kill in 10 minutes
	COVID-19 N gene	KALGen Innolab	90% kill in 10 minutes
TGA COVID-19 Test Testing of virucidal activity of disinfectants by surface carrier technique	COVID-19 Surrogate Murine hepatitis virus (MHV) 1 ATCC/VR-261	Eurofins AMS* AAH97852	99.995% kill in 10 minutes
Aerosolised Test measuring airborne efficacy	SARS-CoV-2	UNSW Sydney	Kills up to 78% of COVID-19 in 10 minutes

SAN-AIR Liquid Formulation

Test Description	Organisms Tested	Laboratory (*TGA Accredited)	Result
TGA Disinfectant Test, Option A	Staphylococcus aureus Escherichia coli Pseudomonas aeruginosa Proteus vulgaris	Eurofins AMS* AAL11274	Passed TGA Test
TGA Disinfectant Test, Option B	Staphylococcus aureus Escherichia coli Pseudomonas aeruginosa Proteus vulgaris	Eurofins AMS* AAL20612	Passed TGA Test
TGA Disinfectant Test, Option C	Escherichia coli Pseudomonas aeruginosa	Eurofins AMS* AAI70897; AAK97235	Passed TGA Test
AOAC Method 991.47, 991.48 and 991.49 (Hospital Grade Testing Criteria)	Escherichia coli Pseudomonas aeruginosa Salmonella choleraesuis	Eurofins AMS* AAL09194	Passed Hospital Grade Testing Criteria
EN 1276 Dirty Conditions	Escherichia Coli Pseudomonas Aeruginosa Staphylococcus Aureas (Golden Staph) Enterococcus Hirae	Eurofins AMS* AAJ20956	99.9999% kill in 1 minute
TGA COVID-19 Test Testing of virucidal activity of disinfectants by surface carrier technique	COVID-19 Surrogate Murine hepatitis virus (MHV) 1 ATCC/VR-261	Eurofins AMS* AAH97851	99.995% kill on contact
SARS-CoV-2 efficacy	COVID-19 RdRP gene	KALGen Innolab	95% kill in 5 minutes 98% kill in 30 minutes
	COVID-19 N gene	KALGen Innolab	97% kill in 5 minutes 99% kill in 30 minutes

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