

AIRVACCINE015+

Active · OH Radical Disinfection



OH Radical Disinfection

OH radicals are one of the most powerful oxidants in the atmosphere - only bettered by fluorine. Also known as the *detergent of the atmosphere*, they strip Volatile Organic Compounds (VOCs)/bacteria/viruses off a hydrogen atom, destabilizing the structural integrity of the cells - rendering them harmless. In nature, OH radicals are produced when sunlight reacts with water vapour and plants' olefins.



AirVaccine015+ is capable of producing up to **10 times** more OH radicals as compared to Photocatalytic Oxidation (PCO) - the method of OH radical generation for most air purifiers. Cascade reaction (also known as *Domino reaction*) of OH radicals allows for re-generation of OH radicals and peroxyradicals to continuously disinfect the indoor air.

*Based on UK's Ministry
of Defence Research*

*Covers up
to 120m²*

*Alleviates Sick House
Syndrome*

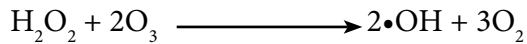


AIRVACCINE 015+

Active ·OH Radical Disinfection

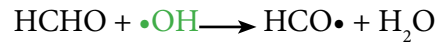
How It Works

·OH Generation Reaction



Ozone generated via Corona Discharge reacts with ambient moisture and Hydrogen Peroxide to form OH radicals. (Replaceable cartridge contains an Ozone Generator and Hydrogen Peroxide)

Neutralizing of VOCs/Bacteria/Viruses + ·OH Re-Generation

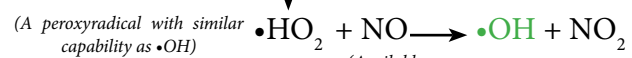


(A type of VOC)

+

O_2

↓



(A peroxyradical with similar capability as ·OH)

+

(Available in nature)

(Further oxidized by ·OH to CO_2)

CO

Cascade reaction of OH radicals neutralizes VOCs/bacteria/viruses and re-generates the initial OH radicals (or generates peroxyradicals), allowing for further air disinfection.

Relieves Allergic Hypersensitivity Reactions

Improves Indoor Environmental Quality

Improves Concentration Levels with Fresh Air

Specification



Dimensions:	345(L) × 136(D) × 241(H) mm
Weight:	1.42 kg
Power Supply:	220-240 V; 50-60 Hz
Power Consumption:	2.4 W
Noise Level:	35 dBA
Wall-Mount Option:	Yes
Replaceable Cartridge:	Yes
Disinfection Efficacy:	99.90% (Bacteria [e.g. Escherichia Coli, Staphylococcus Aureus, etc.]) 99.84% (Vaccinia Virus [e.g. Smallpox]) 98.03% (Influenza Type A Virus [e.g. H1N1]) Up to 95% (VOCs)
·OH Concentration:	10,000,000 / cc
Ozone Concentration:	0.03ppm (Well below NEA's acceptable level of 0.1ppm)