PURIFY-**ONE**

Now more than ever, health and safety are of utmost importance.
Take disinfecting to the next level with the latest in Ultraviolet (UV) technology.

Why UV Disinfecting?

Harmful germs and bacteria are everywhere. Now more than ever it's important to ensure that the space around us is healthy and safe. Sterilizing hand gels, disinfectant sprays, and sanitizing wipes are not enough to ensure a healthy environment.

Many bacteria and viruses are heat, cold, and drug-resistant. They are not UV resistant!

Utilizing UV-C at 270-280 nanometers (nm) and UV-A at 380-405 nm, Purify-One devices damage the DNA and RNA in bacteria and viruses rendering them harmless.

With high powered, proprietary LED light technology, Purify-One UV devices allow you to disinfect up to 10x faster than most fluorescent UV devices and is 2x more powerful than other LED UV devices on the market.

What is UV Light?

Ultraviolet (UV) light is a component of the electromagnetic spectrum that falls in the region between visible light and X-Rays. This invisible radiation includes the wavelength range of 100 nm to 400 nm.

UV light can be further subdivided and categorized into four separate regions:

- **100 to 200 nm:**
  Far UV – these wavelengths only propagate in a vacuum
- **200 to 280 nm:**
  UV-C – useful for disinfection and sensing
- **280 nm to 315 nm:**
  UV-B – useful for disinfection, curing, tanning, and medical applications
- **315 nm to 400 nm:**
  UV-A (or "near UV") – useful for disinfection, medical applications, printing, curing, lithography, and sensing

Most Natural UV light is generated by the sun with about ten percent of sunlight being UV and only 3 to 4 percent penetrating the atmosphere to reach the ground. Of the UV radiation that reaches the earth, 95 percent is UV-A and five percent is UV-B.

No measurable UV-C from the sun reaches the earth's surface.

Because of the spectral sensitivity of DNA, the UV-C region demonstrates significant germicidal properties.

The Research

As evident by multiple research studies and reports, when biological organisms are exposed to deep UV light in the range of 200nm to 300nm it is absorbed by DNA, RNA, and proteins.

How this affects bacteria and viruses:

- Absorption by proteins can lead to the rupture of cell walls and the death of the organism.
- Absorption by DNA or RNA (specifically by the thymine bases) is known to cause inactivation of the DNA or RNA double helix strands through the formation of thymine dimers. If enough of these dimers are created in DNA, the DNA replication process is disrupted and the cell cannot replicate.

It is widely accepted that It is not necessary to kill pathogens with UV light, but rather apply enough UV light to prevent the organism from replicating. The three main types of UV rays are UV-A, UV-B, and UV-C. Because UV-C rays have the shortest wavelength, and therefore highest energy.

UV-C has been proven to kill strands of coronavirus (below are notable research studies demonstrating the effectiveness of UV-C light on SARS and MERS).

- https://www.ncbi.nlm.nih.gov/pubmed/17002634
- https://www.ncbi.nlm.nih.gov/pubmed/14631830
- https://www.ncbi.nlm.nih.gov/pubmed/27805261

THE PURIFY-ONE DIFFERENCE

Doctor Designed & Developed

Over 30 years of R&D in light technology.

Demonstrated history of industry leadership.

Proprietary Medical Grade Technology

Mixed Wave (TM) technology: UV-C and UV-A.

Rigorous safety protocols and testing.

Double the Power of Other UV Wands

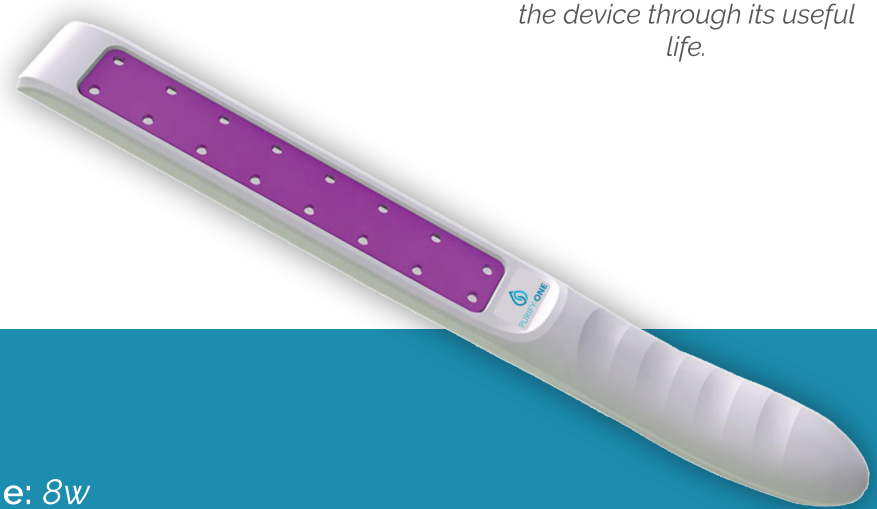
Disinfecting times significantly reduced.

Coverage areas tremendously enhanced.

Best-in-Class Components & Performance

2x the LED's of other LED UV wands (High-grade sapphire quartz optics with no mercury or glass – proudly assembled by hand in the USA).

Industry-leading useful life (50,000 hours or ~10 years of continuous use) with no degradation in the efficacy of the device through its useful life.



PRODUCT DETAILS

Size: *14.5" x 1.625" x 1.25"*
Weight: *6.5 oz*
Wavelengths: *270-280nm / 380-405nm*
Irradiance: *UV-C 6w / m2*
Voltage: *DC 5v / 2A*

Wattage: *8w*
Control: *60 minute timer*
Battery: *2,000 Mh*
Color: *White*
Warranty: *1-year included*

PURIFY-ONE

www.Purify-One.com

info@purify-one.com

@purifyone @purifyone_1 @OnePurify

PURIFY-ONE

Purify-One UV Wand

Ultraviolet Disinfecting Unit - Specification Sheet

THE OPTIMAL POWERED UV DISINFECTION WAND FOR BOTH HOME & COMMERCIAL USE

Doctor Designed & Developed

- *Over 30 years of R&D in light technology*
- *Demonstrated history of industry leadership*

Proprietary Medical Grade Technology

- *Mixed Wave™ technology utilizes powerful UV-C / UV-A LEDs to eliminate up to 99.9% of harmful bacteria and viruses within seconds (backed by reputable third-party lab testing)*
- *Rigorous safety protocols*

Powerful Wavelengths & Functional Superiority

- *Using both UV-C at 270 – 280 nanometers ("nm") and UV-A at 380 - 405nm, the Purify-One UV Wand damages the DNA and RNA in bacteria and viruses rendering them harmless*
- *High output LED's allows you to disinfect up to 10x faster than competitors offerings*

Best-in-Class Components & Performance

- *Industry-leading useful life (50,000 hours or ~10 years of continuous use)*
- *No notable degradation in the efficacy of the device through its useful life*

Portable & Easy to Use

- *Lightweight and portable*
- *Built-in long-life battery (2000 Mh re-chargeable battery, with an average use of ~90 minutes per charge - energy efficient USB-C charging)*

Included Accessories

- *UV safety goggles and gloves*
- *Handy carrying case*

SPECIFICATIONS

Construction
- Solid-state technology
- 100% ozone and checmical free
- Contains no mercury or glass
- High grade sapphire quartz optics

Size
- Width: 1.625"
- Height: 1.25"
- Length:14.5"

Weight
- 6.5 oz

Wavelengths
- UV-C: 270-280nm
- UV-A: 380-405nm

Irradiance
- 12 mJ/cm2

Voltage
- DC 5v / 2A

Wattage
- 8W

Charging
- USB-C
- 2-3 hours to fully charge

Battery
- ~50,000 hours of useful life
- ~90 min of continuous use

Warranty
- One Year

INTERNATIONAL IUVA ULTRAVIOLET ASSOCIATION

3RD PARTY LAB TESTED

CE

RoHS

MADE IN USA

 | 3663 Nasa Parkway, Suite 706, Seabrook, TX 77586

832.418.6569 | info@purify-one.com | www.purify-one.com

PURIFY-ONE VS. TRADITIONAL SPRAY-AND-WIPE

PURIFY-ONE UV SOLUTIONS

- One-time upfront cost, with the potential for significant Return on Investment (ROI) for almost every application
- Industry leading disinfecting times and coverage utilizing proprietary medical grade technology
- Best-in-class useful life (50,000 continuous hours or ~10 years)
- Clinically proven to disinfect and eliminate up to 99.9% of germs, bacteria, and viruses
- Doctor designed and developed – Over 30 years of R&D in light technology
- Rigorous safety protocols and testing
- Significantly enhanced patient, resident, and consumer confidence (enormous ROI potential)
- Truly a green solution

TRADITIONAL SPRAY-AND-WIPE

- Ongoing expense
- Labor intensive
- Often results in wiping hard surfaces with contaminated cloths
- Can contaminate hands, equipment, and other surfaces
- Chemical inhalation and the potential for resulting health issues (i.e. - asthma and skin irritation)
- Potential for shortage of supply during pandemics, resulting in significant business disruption
- Traditional cleaning methods have been shown to only sterilize approximately 60% of surface areas in a room
- Not a green solution

PURIFY-ONE VS. ELECTROSTATIC SPRAYER

PURIFY-ONE UV SOLUTIONS

- One-time upfront cost, with the potential for significant Return on Investment (ROI) for almost every application
- Industry leading disinfecting times and coverage utilizing proprietary medical grade technology
- Best-in-class useful life (50,000 continuous hours or ~10 years)
- Clinically proven to disinfect and eliminate up to 99.9% of germs, bacteria, and viruses
- Doctor designed and developed – Over 30 years of R&D in light technology
- Rigorous safety protocols and testing
- Significantly enhanced patient, resident, and consumer confidence (enormous ROI potential)
- Truly a green solution

ELECTROSTATIC SPRAYER

- Significant upfront expense
- Ongoing expense related to procuring, and mixing chemical solution
- Leaves chemical residue, which can be easily absorbed through the skin
- Harsh chemicals can damage paper, wood, leather, and many other materials
- Sterilization has been shown to last as long as UV light sterilization
- Unpleasant odor after spraying
- Additional cleaning is needed to clear residue after multiple sprays
- Hazmat suit and / or breathing apparatus recommended for person applying the spray
- Not a green solution

PURIFY-ONE VS. OTHER WANDS & OTHER UV LIGHT SOLUTIONS

PURIFY-ONE UV SOLUTIONS

- One-time upfront cost, with the potential for significant Return on Investment (ROI) for almost every application
- Industry leading disinfecting times and coverage utilizing proprietary medical grade technology
- Best-in-class useful life (50,000 continuous hours or ~10 years)
- Clinically proven to disinfect and eliminate up to 99.9% of germs, bacteria, and viruses
- Doctor designed and developed – Over 30 years of R&D in light technology
- Rigorous safety protocols and testing
- Significantly enhanced patient, resident, and consumer confidence (enormous ROI potential)
- Truly a green solution

OTHER WANDS AND OTHER UV LIGHT SOLUTIONS

- Poor build quality (less effective – disinfecting times often range from 2 – 10x longer, due to lower strength and significantly narrower coverage area)
- In almost all cases devices are made overseas
- Often utilize Mercury-based bulbs, which can be extremely dangerous if the device is dropped and / or damaged
- Folding devices or related mechanical components do not hold up to wear and tear (handle is not durable and easily breaks)
- Often not tested in a laboratory to prove the efficacy of the device, and do not carry the proper certifications and / or safety protocols
- Significant degradation in the strength and coverage of the device over a very short interval (short useful life)
- "Plug-in" models are limited to the area they can clean without extension cord
- No built-in safety protocols (lack of auto-shutoff when wand is turned upside down), and no override button to allow for sterilization underneath objects, or above the user's head
- Often not a green solution

PURIFY-ONE

Clinical Validation

(THIRD-PARTY LAB TESTING)*

Purify-One UV devices have been tested by independent accredited third-party testing labs. Devices tested utilize proprietary Mixed Wave™ technology containing UV-C and UV-A light.

Bacterial Testing

	Average % Reduction	Duration (in seconds)
RANGE	0.25 meters	
E. coli	99.99%	3
Salmonella	99.9%	3
MRSA	99.9%	3

Bacterial Spore Testing

	Average % Reduction	Duration (in seconds)
RANGE	0.25 meters	
C. diff	99.99%	6

Virus Testing

	Average % Reduction	Duration (in seconds)
RANGE	0.25 meters	
Norovirus	99.99%	4
SARS = CoV	99.9%	4
MERS - CoV	99.9%	4

Fungal Testing

	Average % Reduction	Duration (in seconds)
RANGE	0.25 meters	
C. auris	99.99%	5

832-418-6569 | *info@purify-one.com* | *www.purify-one.com*

*Preliminary lab results - continually retested and updated on a rolling ninety (90) day basis.

PATHOGENS TESTED

The CDC actively maintains a list of drugresistant pathogens that pose a threat to the United States. The loss of effective antibiotics makes it even more critical to have alternate solutions to prevent the spread of bacteria, viruses, and fungi. Purify-One UV devices have tested against key pathogens of greatest concern.

E. coli
- This bacteria has multiple strains that is most commonly known for food poisoning.
- Over 260,000 infections occur each year from Shiga toxin-producing E. coli (STEC)

Salmonella
- Leading cause of hospitalizations due to foodborne disease costs an estimated $2.2 billion in healthcare costs

MRSA
- MRSA is a type of staph bacteria resistant to many antibiotics
- Over 80,000 cases of MRSA each year and 11,000 associated deaths each year in the U.S.

C. diff
- Clostridioides difficile (C. diff) is a bacterium that causes diarrhea and colitis (an inflammation of the colon)
- Approximately 29,000 people diagnosed with C. diff in a year died within one month of diagnosis

Norovirus
- Highly contagious virus, norovirus causes inflammation of stomach and intestines, resulting in vomiting and diarrhea
- Estimated to cause 19-21 million illnesses each year in the U.S.

SARS – CoV
- Severe acute respiratory syndrome coronavirus (SARS – CoV)
- An epidemic of SARS affected 26 countries and resulted in more than 8,000 cases in 2003, symptoms are influenza-like and include fever, malaise, myalgia, headache, diarrhea, and shivering (rigors)

MERS – CoV
- Middle East respiratory syndrome coronavirus (MERS – CoV)
- Health officials first reported the disease in Saudi Arabia in September 2012, symptoms include fever, cough, and shortness of breath

C. auris
- This highly lethal, fungal resistant fungus is an emerging, yet serious global health threat