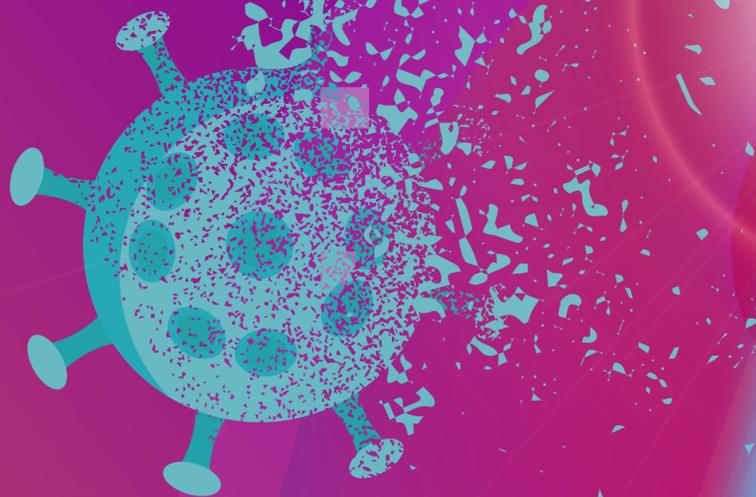
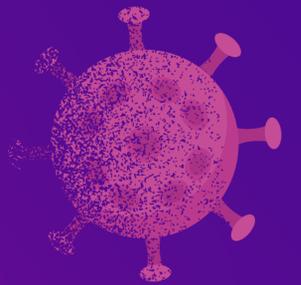


# Sun Supplies

## UVC Sanitization Solutions



4104 78 Ave NW  
Edmonton, AB  
T6B 3M8

Ph: 780.413.9774  
[uvc.sunsupplies.ca](http://uvc.sunsupplies.ca)

# UVC versus chemical disinfectants, gaseous, germicidal?

Hospitals have been known to harbor the superbugs due to one main cause; extensive daily use of chemical germicidal solutions. Every pathogen quickly develops new strains that are immune to chemical germicidal solutions. Ultraviolet photons destroy the DNA of the pathogen thereby preventing any new strains developing.

Did you know that UVC stand-alone, mobile, upright sanitizers can reduce virus load for any airborne or surface collected pathogen in minutes saving time and labor?

UVC germicidal robots are the new must between patients in a clinic, dentist, chiropractors office, or any meeting place that has many patients, clients coming one after another. Stop the cross contamination after each use of the room air, surface, floor and all the chairs, tables in a few minutes to protect the next client from any possible contamination.

## Cleaning by hand versus UVC sanitization

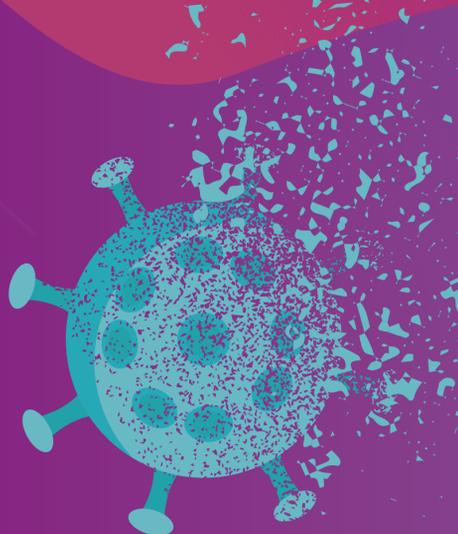
Hand wiping the surfaces is laborious and takes time. Human nature may allow mistakes, skipping some areas without wiping. Airborne pathogens, viruses can not be controlled by any hand wiping with chemicals.

## Fact check: Lower the airborne virus quantity; lower the risk of contracting any disease.

UVC 254 nm non-ozone producing light can destroy pathogens in seconds. Most viruses are transmitted through aerosols in air as such that hand wiping surfaces will not break the virus spread.

Our Ultraviolet-C producing germicidal devices can be divided into following groups based on the areas that they sanitize:

- A. Surface disinfection/sanitizing devices
- B. Airborne pathogen reduction devices
- C. Combination of Airborne pathogen as well as surface disinfection devices



# UVC SANITATION FAQ

## What is UVC?

Ultraviolet radiation that is shorter wavelength between 185nm to 280nm range that is used mainly for germicidal action to break down RNA and DNA to prevent replication of pathogens

## How does UVC work?

Works either by producing ozone and free radicals that travel in air to damage the pathogens or as UVC photons directly impacting the pathogens damaging their DNA and RNA.

## What is the difference between 185nm, 222nm, 254nm, 280nm wavelengths in UVC?

185nm shorter wavelength produces ozone, travels in air very short distance which means can not directly impact the pathogens. 222nm can destroy pathogens with limited travel in air while producing the least damage in human skin and eye as its penetration capability is very short that is why it has the least damage in human eye. 254 nm is the most effective in penetration as well as in kill rate with no ozone production. produces reactive oxygen species that travel in air for sanitization process. 280nm is the border of UVB range, with much reduced kill rate.

## Germ Control lamps; and ozone production?

All our UVC 222, 254, 280nm range UVC lamps produce maximum output at 254nm and covered with non ozone producing coating to prevent any irritation under FDA ruling and complies with health Canada regulations as well as EPA regulations.

## What is EPA registration for UVC?

All UVC devices and UVC device manufacturer and distributors are to register their lamps, devices with EPA and continue to follow up with recall procedures in order to market any UVC devices in USA and Canada. All of our devices are registered and marked on every device.

## Sterilization versus Sanitizing?

Sterilization is applicable to medical devices and means 100% elimination of the pathogens and guaranteeing it. Requires medical device licence, auditing, and verification protocol usually used in hospitals, dental clinics.

Sanitization means seriously reducing pathogen count to a low level but not 100% elimination guarantee.

## What is the lamp life?

the quartz germicidal lamps can have lifespan between 3000hrs to 20000 hrs.

We utilize 16,000hr lamps that can last as long as 20,000 hrs with 20% reduction at the end of lifespan.

## What is the lamp cost?

We utilize a number of of proprietary lamps for our various models, please consult our current price list.

Most our devices utilize lamps that will last as long as the equipment.

Such as our UVC space 500 and space 1000 robots with 3 to 5 minute/use usually allows 1 hour to 2 hours of daily use that makes the lamps last as long as 20 years to 30 year before replacement.

## What is UVC dosage?

It is measured in Joules or micro Joules per square cm area to kill /destroy or seriously damage the DNA RNA or a pathogen. Such as the listed requirement for influenza virus is 6600micro Watts/sqcm If you have a lamp that delivers at the exact location of the influenza virus you divide 6600 by the lamp intensity usually given in microWatts/sqcm example is our UVC500 lamp at 8 feet distance delivering 155micro Watts/sqcm will destroy influenza virus  $6600/155= 43$  seconds 99.9 %

## Do we have a Covid-19 dosage test done with Tanses devices?

No. The Covid 19 is constantly mutating and we do not have the virus in hand. Instead; we base destroy rates at 5 times the kill rate of influenza virus.

## How can we prove that this works?

UVC kill rates for each pathogen is produced by many scientific labs and listed everywhere for the last 60 years. See our manual which has a list in it.

## Can we order a test kit?

For most pathogens you can order test petri dishes to check the kill rates

## How dangerous is UVC?

It can burn your skin and eyes within 10 to 20 seconds and longer durations may cause more serious burns. Only qualified trained person should be operating our UVC sanitation devices with all skin covered and protective eyewear. Never expose any living thing to UVC light. Unprotected humans, plants or animals should be nowhere in the vicinity or line of sight of the UVC devices while in operation.

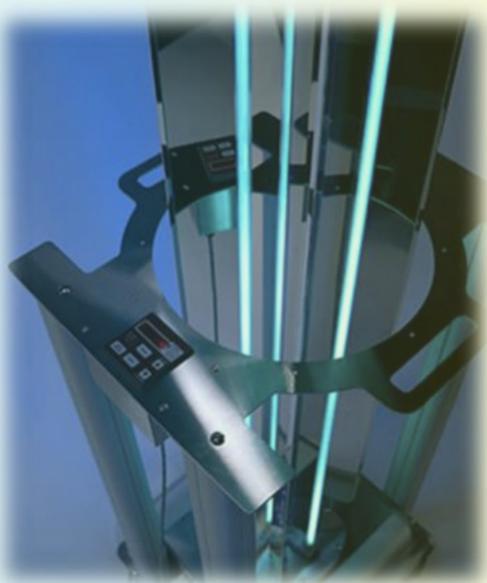
**Practical Applications: Doctors Clinics/examination rooms between patients, Chiropractors, Physiotherapists, Naturopaths. Gyms, Yoga and Dance centers, Dental clinics, Hotels and motels, Prisons, Cafeterias, Court houses, Schools, Warehouses, Shipping and Postal outlets, Restaurants, Bars and other Entertainment venues, Businesses, Homes.**

# Using our state-of-the-art ultraviolet C light devices, sanitize surfaces and reduce the airborne viral particle count in mere seconds!

## Space-500 & Space-1000: Mobile UVC Robots

These devices are equipped for the security of its users with multiple motion sensors that will shut-off the device in the presence of any motion. The devices all have preset off control that allows the user to set the timing and leave the room without any exposure.

Space-500 model can sanitize any room of 20 feet by 20 feet in minutes. Space1000 model has 65" long vertical lamps that expose even the undersides of tables, chairs. The device is equipped with patent-pending floor UVC sanitizer that covers the floor beneath the pedestal.



## Intended Use

220nm to 280nm nominal 254 nm UVC, 360° room sanitizer between patients and customers. Effective room air pathogen reduction device. Surface disinfection of equipment, walls, tables, furniture, fixtures, and highcontact items. Floor disinfection against viruses, bacteria, mold. Natural virus destruction without any resistance build-up. Rolls room to room on 4 casters.

## Air Duct Units: UVC-10 & UVC-15

Air duct mounted UVC devices reduce pathogens in HVAC systems wherever there is a central airmoving system present.

UVC air ducts were originally invented by our manufacturing company and put to use in 1992, supplied to hospices for the critically ill, elder housing facilities, dental clinics, as well as to sick buildings with air quality issues.



## How it Works

All microorganisms contain nucleic acid which reacts with UVC at 254 nm range resulting in destruction of DNA of the organism. This process usually takes only a few seconds depending on the intensity of the light source. The result is dependant on the total UVC dosage and the kind of germ that needs to be destroyed.

## Handheld Trio: 20W, 40W and 100W Models

High-power, handheld UVC wands of different lengths that have a controlled exposure area to protect users. Mainly for surface sanitization of corners, doors, handles, toilets, etc.

Devices can also be mounted on a wificontrolled outlet to be used when no humans are present — either hanging from a ceiling, wall or sitting upright vertically on its balanced supports. UVC range of 220nm to 280nm nominal 254 nm UVC, 360° room sanitizer between patients and customers.



## Intended Use

Surface disinfection of surfaces: walls, tables, furniture, fixtures, and highcontact items. Floor disinfection against viruses, bacteria, mold. Natural virus destruction without any resistance buildup. Stable enough to stand vertically on its own. Easy to hang from cables for large area sanitizing. Easy to hold by hand for sanitizing corners, crevices, car interiors in seconds.