

# Frequently Asked Questions (FAQs)

## Ozonated Radical Confined Space (ORCS) Sanitization Unit - Poon Swachh

### What is Ozonated-Radical Confined Space (ORCS) Disinfection Unit?

Ozonated- Radical Confined Space (ORCS) Disinfection Unit is a portable and mobile machine that generates ozonated fog (either with or without Triyogani disinfectant formulations) and penetrates into various parts of room or vehicle (confined space) neutralizing microbes, viruses, bacteria etc.

### We are often confused between Sanitization, Sterilization and Disinfection terms? In which all categories ORCS Confined Space Disinfection unit fits?

Sanitization refers to procedures adopted to reduce the overall pathogenic microbes on surface, thereby reduces the chances of getting sick. Sterilization is process of decontamination by using combination of chemical application, ozone, UV-C, heat, and / or pressure to eliminate any and all pathogenic surfaces on microbes. Disinfection refers to procedure to use “specific sanitizers” for a particular targeted agent such that they are effective on inanimate surfaces, but can often be weakened if contacted by organic matter. Disinfectants always require “dwell time” to be effective. Poon Swachh - technology provide options for mild sanitization (aqua-ozone) and effective sterilization (triyogani-ozone) based on nature of work / activity carried out in room / vehicle (confined space).

### What do you understand by Confined Space? Can ORCS Disinfection Unit be used in Open Space too?

Confined Space herein refers to space which has distinct boundaries, standard entry/ exit (same or different), either static or moving and being used for specific purpose. It could be hotel rooms or your bed room, office room, residential flat or penthouse, independent unit developed on a plot, personal, commercial or evacuation vehicle (like ambulance), isolated ward, patient observation room, Intensive Care Unit, Operation Theatre with specific dimensions and differentially required sanitization/ sterilization. No, ideally ORCS should not be used in open space being their principle of causing humidified disinfectant is practically impossible.

### What ORCS Disinfection unit disinfect?

ORCS Disinfection unit sanitize or sterilize ‘confined space’ depending upon type of treatment given to the space. The fog generated by non-heating (without any thermal source) devices is in liquid phase and containing millions of molecules of water mixed with ozone alone or in combination with Triyogani solution. It disperses to every part of SPACE eliminating microbial count and reducing it significantly. Triyogani Ozone is tested against bacterial spores resistant to heat and found extremely effective. Thus, based on nature of risk of occupant of Confined Space, treatment is chosen to disinfect the Confined Area in absence of the occupant.

### Whether ORCS Disinfection Unit generates mist or fog? How fog is different from mist, which is better mode of sterilization/ sanitization/ disinfection?

Fog is liquified droplet below 5 micron while mist is of higher size. Both are liquid phase droplets that are lighter than air to move in air randomly moves due to brownian motion unlike vaporized system which is gaseous phase. Mist is good for acute disinfection cycle while fog is highly penetrating required for slow sanitization cycle.

### ORCS Disinfection Unit generates aqua-ozone, is it safe for humans? What if I am not interested in ozone does it provide any alternative mode to sanitize the area?

ORCS Disinfection Unit generates aqua-ozone environment and yes, it is safe for humans as the dosage of ozone in a standard space of 12 X 12 X 10 ft is only 33% of accepted levels of ozone world wide. The ozone gas is lesser than least count of standard ozone meters too. However, since effective operations are carried out at 90% humidity which is uncomfortable for us, thus it is recommended by the company to start the machine and leave the room. It will automatically stops as humidity monitor is provided with machine. Even if the occupant of Confined Space opts for treatment of room without using ozone, the unit provides option to use ‘triyogani’ alone treatment or even some other treatment based on requirement of client.

### **What levels of aqueous ozone or ozone are accepted world-wide for such disinfection practices?**

The accepted levels of ozone (dry) is 0.1 ppm X 8 hrs as the acceptable occupational dosage. However these dosages are not recommended for sterilization practices. Thus, triyogani ozone is a safe option that enhances the impact of ozone in synergistic manner while disinfecting the room or vehicle.

### **What are possible areas the company recommends its utility?**

The company recommends it for two primary purposes: (a) Aqua ozone based “enhanced cleaning process” and; (b) Triyogani ozone based “sterilization” process. Thus, it is recommended in following activities : (i) sanitization of quarantine rooms; (ii) sterilization of isolated wards; (iii) enhanced cleaning of residences and homes on daily basis; (iv) part of hotel room’s cleaning kit or even deployed in hotel rooms for multiple utility; (v) vehicle based sanitization using extended unidirectional node (pipe); (vi) diversely also used by Spas to use mild ozone mixed with various body treatments; (vii) used at entrance of the home / public areas to provide dry fog exposure to shoes / lower body part as part of safety consideration; (viii) bags etc., entering into hotel; passing through airports, railways, bus depots can be treated for sterilization process (being even food safe). The system is deployable to any place (confined area) like green rooms of stadiums, cinema halls, gyms etc., for practicing continuous sanitization/ sterilization practices.

### **How this unit is better than available counterparts for room sterilization?**

Unlike others, it is a portable and easily deployable unit. For sanitization purposes, it has no additional recurring cost which can easily be integrated into enhanced cleaning processes of any organization. In case of sterilization on random frequency (as per infectious control policy of buyer) triyogani ozone combination is available. The present counterparts doesn’t provide such combinations. Ozone is higher oxidative potential than its counterparts like hydrogen peroxide and when used within safe limits as part of daily cleaning eventually reduces pathogenic content without causing over-sterilization. It is extremely cost effective as compared to available counterparts.

### **Is it better than UV-C based room sterilization device or similar / lesser in potential?**

UV-C based sterilization device is extremely potential to the items or surfaces in its line of path. Any slight deviation or obstacle in path (or shadow areas), the effectiveness reduces significantly, thus referred as surface disinfectant only. The time and energy required to achieve UV-C based room sterilization is higher and if reduced, the disinfection practice will fail. All the UV-C systems come with delayed timer for the safety of personnel performing the disinfection. Poon Swachh on there other hand has primarily a component of “Enhanced Cleaning Process” and if treatment is given using Triyogani Ozone, then it acts as safe and comprehensive sterilization process. The system is more effective as it is not restricted with obstacles in path however time required might be similar. No delayed timer is required in ‘Poon Swachh’ as it is safe to start the machine and then leave the room. Thus, considering multiple options and safety consideration, Poon Swachh is a better choice.

### **The company recommends it to use in hotel rooms, can we add any specific fragrance to this unit as presently its’ odorless but shows generation of liquified droplets coming out of device?**

Yes fragrance can be added to unit if need be. In case it is used for cleaning process, mild fragrances is acceptable as per choice of buyer. In case it is deployed in hotel rooms as additional equipment to provide a proper humidified environment, the humidity levels should be adjusted to lower levels and ozone should be set to zero. This practice ensure that guests of hotel while using this system can operate effectively to create romantic environment and not started “enhanced cleaning process” on their own.

**Does the efficiency of the machine differs when works with Air Conditioner or if there is no air conditioning?**

The efficiency of the machine is defined as time by which it sanitizes or sterilizes a Confined Space. Poorn Swachh works on principle of humidifying the room while Air Conditioner works on opposite principle to maintain humidity levels within comfortable use by people. Thus, if Air Conditioner is ON, the time by which such humidified contact state is either delayed or even not achieved.

**How it will sanitize a room linked with Centralized Air Conditioning System? Is it going to help in sanitizing the room as often hotels and restaurants are centralized air conditioned?**

Centralized AC works on opposite principle to maintain humidity levels within comfortable use by people as well as their cooling. Each hotel room or restaurant fitted with such system also has options to either stop or minimize its impact by closing ducts. Once closed, put the machine and start the process, it will take maximum 20 minutes to disinfect a standard room of 12 X 12 X 10 ft.

**At what rate the fog is generated from the system? What is the net capacity of system?**

Fog is generated at the rate of 33 ml / min and within one hour 2 liter of water gets converted into fog. The net capacity of system is 10 L volume.

**Can this unit be used on stage while performing to generate such fog as it will sterilize the stage for actors working in close proximity as well as it add ambience to stage?**

Yes, it can be used on stage also as it will generate dry fog which can be added with light and sound to create excellent ambience. However sanitization / sterilization activities cannot be done while performers are performing. In such case, ozone should be set to zero.

**Whether ORCS works on principle of dry or aqueous fogger? What is the difference in these two technologies?**

Disinfectant foggers reduce or eliminate microorganisms such as viruses, bacteria, fungi, mold, and mildew. The canisters are activated by pressing a button on the canister, which releases a fog into the room, office, or any other space. The fog covers everything, disinfecting and deodorizing at the same time. Fumigating fog penetrates deeply. Dry fog usually has droplets that are 10 to 15 microns in diameter. This is because the droplets are so small that they create a seemingly dry fog. On the other hand, a fog that has droplets that are 20 to 30 microns in diameter is considered wet fog. ORCS works on the principle of aqueous fog dispersing through air.

**How the company has validated sterility assurance of fog generating from the ORCS Disinfection Unit.**

The sterility assurance of fog is validated primarily using bacterial spores exposed to fog and found that exposure to triyogani ozone killed bacterial spores. The spores used for such study are globally known biological indicators for sterility assurance.

**What do you understand by ORCS Disinfection Technology? What are steps to start the machine? What are different setting modes and what is their purpose?**

ORCS Disinfection Technology refers to generation of ozonated fog with or without triyogani solutions in a confined space with minimum air leak. Ozone is mixed with water or triyogani solution generating fog at the rate of 33 ml / min. In about 20 min, 90% humidity can be achieved in a 12 X 12 X 10 ft room or Space. Being tested with bacterial spores, triyogani ozone able to create a sterilized environment. Herein, only acceptable levels of ozone are permitted. Steps to operate the machine are as follows:

1. Keep the machine possibly at the centre of Room.
2. Plug in the source using extended wire provided.
3. Fill in with water till max level as shown in visible scale
4. Draw the humidity indicator wire and take it maximum distance in vertical direction on either side of room.
5. Rotate each fog pole on diagonally opposite direction such that it provides complete coverage
6. Set the ozone to required level using timer (in advance models, it comes at pre-setting thus either it can be ON or OFF)

7. Set the humidity at 90% (in advance modes, it comes as default setting, changeable as per requirement of user)
8. Add Triyogani - Sterilizing Solution (4ml / L) if room needs to be sterilized otherwise for enhanced cleaning process, avoid this step
9. Push the start button and immediately fog starts coming out
10. Leave the room and close the door
11. Once 90% humidity is achieved, machine will automatically stops, wait for 5 minutes more as part of contact time delay protocol
12. Start fan or A/C of the room, open the windows (in residences) and you will see fog will disappear immediately. This is only required if you need to use the room immediately otherwise unplug the machine and remove it from room and close the door
13. Remember do your all cleaning process prior to ORCS disinfection and this will give more time for disinfectant to be at all corners of room.
14. An extended pipe is provided with machine also. Close three fog poles and fix the extended pipe on fourth one. The extension of pipe can be placed inside the car by slightly lowering the mirror, it will take few minutes to fill in the car, leave it till the driver wants to drive it. Driver should be instructed to open all the windows and gates for few minutes prior to start driving.
15. The same extended nozzle can be used to sanitize any particular closed area, or material, bags etc.

### **How long machine should be operated to sanitize the Confined Space?**

Based on studies of different sized rooms with different types of air leakage, an average of 20 minutes is required for a room of 12 X 12 X 10 Ft with minimal air leakage.

### **What we need to do once the indicator showed less water and what will happen if we don't add water or dispensing solution?**

If the indicator is showing less water, it will start buzzing out loud alarm all you don't add water. Even if you start the machine, it will be automatically shuts down if water is not added.

### **What if keep ozone level sets at zero?**

If ozone is kept at zero, no ozone will be mixed. You can add triyogani solution to use it for ozone less sterilization.

### **What if we keep ozone level at medium or maximum but doesn't add Triyogani dispensing solution?**

The system is designed such that when you keep ozone at maximum still the ozone levels in the Confined Space remained under acceptable level. The process is designed to provide sanitization of space with an option to reduce levels as needed by user. If we doesn't add Triyogani solution, the process will aid only enhanced cleaning process.

### **What if keep ozone max, add maximum recommended solution of Triyogani, whether the room is still safe for us or should be vacate it?**

If ozone is set at max and recommended solution of Triyogani (4 ml /L), the room is still safe as the process is designed with such levels only. However, since in few minutes humidity will be rising rapidly which is not advisable for the person to have unnecessary being in uncomfortable levels of humidity, thus SOPs clearly indicated that room should be vacated and door should be closed. The system will automatically stops once humidity levels is reached and then we need to provide delay time of 05 minutes for effective sanitization prior to removing the machine.

### **What if we add Triyogani solution (max) as per size of room as recommended but don't add ozone (i.e. kept at zero), what will be level of sanitization?**

If we add Triyogani (max) as per recommended values, it will sterilize the room at moderate level as Advance Oxidative Process is not initiated, however for daily sanitization protocol if one wants to keep ozone at zero, this is also a recommended SOPs. The purpose of machine is to provide appropriate sterilization with respect to size of room and occupational hazard level.

**What if we add other solutions like HoCl, NaOCl, Hydrogen Peroxide or any other radical dispenser in this system?**

There are lots of recommended solutions to sterilize the room however their state of creating disinfection state is also important. Ideally Hydrogen Peroxide vaporized state is more known for disinfection though effective in fog state. The recommended level of Hypochlorous acid and Sodium hypochlorite can be used in fog state too. This platform can be used for above-solutions however related SOPs, safety considerations are as per the choice of user. It is also user's prerogative to use ozone in combination or not. Company neither recommend nor deny the use of such chemicals, however suggest that take appropriate precautions and suitable clearance of using such chemicals in this form for the said purpose. The company's warranty terms automatically will not be applicable for such SOPs.

**What is difference between "slow sanitization cycle" and "acute disinfection cycle". Where ORCS Disinfection Unit fits? Which one is better?**

Slow sanitization cycle refers to generation of fog at slower rate mixing into the atmosphere covering every corner of Confined Space, however it can be practiced using safe values of disinfectants on regular basis. On the other hand, Acute Disinfection Cycle refers to higher concentration of disinfectant sprayed in a confined space in least possible timeframe. This is generally practiced when the area was occupied with suspected or confirmed persons during infectious pandemic era. This is generally not practiced every day and possibly higher disinfectant concentration may cause some damage to surfaces too. UV-C is also used for acute disinfection cycle however limited to sanitization across the path length only. ORCS Disinfection Unit is designed for slow sanitization cycle with highest time limit to 20 minutes subjected to size of room and status of air leak conditions. This utilizes safe level of disinfectant in providing maximum sanitization / sterilization. ORCS provide option to use Triyogani or any other disinfectant alone or in combination with ozone to manage different level of risks contained in Confined Space.

**What does it mean that the aqueous ozone kills bacterial spores? How it is related sterility assurance?**

It is well known fact that in presence of humidity ozone supports higher oxidative processes eliminating microbial flora. However the present unit is designed with safe ozone level to trigger these processes in diluted concentration of Triyogani (1:250 dilution) ensuring sterilization. This combination is tested against bacterial spores with heat resistant ability known as indicators of sterility assurance world-wide.

**What is the recommended size of room for ORCS Disinfection Unit ?**

ORCS Disinfection Unit is tested and validated in different size of rooms however, under ideal conditions of minimal or no air leak, a room of standard size i.e. 12 X 12 X 10 ft can be sanitized in less than 20 minutes. However higher size of rooms can also be disinfected recommended up to 2 Lakh liter volume of Confined Space.

**What if we keep ORCS Disinfection Unit in higher size of room as compared to recommended size?**

If we keep ORCS Disinfection Unit in higher size of room as compared to recommended size, the spread will be slower however, if there is no air leakage, eventually concentration will reach to every corner of room. One has to ensure addition of triyogani solution and addition of water if it gets consumed in the cycle. Triyogani Ozone is recommended for such higher sized room ensuring sanitization.

**What are the consumables provided with ORCS Disinfection Unit? Do we require continuously or can we operate independently from them too?**

The consumables are : (a) Triyogani -A solution (recommended for general sanitization) and; Triyogani-B solution (recommended for comprehensive sterilization). An extended nozzle pipe is also provided to use it for vehicle sanitization. Operational manual is also provided with proper instructions and maintenance. Triyogani solution is the only consumable provided however needed for sterilization cycle and not aqua-ozone linked sanitization process.

**Whether ORCS Disinfection Unit is available in different colors too? What if I want any specific color matching the requirement of furniture of my office, whether it will be provided, what will be terms and conditions for such option?**

Yes, it could be made available. The present color is black. Depending upon customer's choice few color selections are available. The color options are either practiced with bulk purchase terms or extra cost for such service varying from case to case basis. The coloring state is limited to body of unit only, rest of the components are standardized and no change can be offered at present.

**Is ORCS Disinfection Unit is recommended for homes too? Is there any health hazard with respect to adults or children?**

Yes, it is recommended for homes too especially for personnel involved in either essential service providers or occupations with unavoidable close proximity (like industries) . No there is no health hazard to adults or children as extremely low concentrations of disinfectant and ozone are used. However, as per SOPs, once the machine is ON, the room needs to be vacated to avoid unwanted exposure to higher level of humid environment.

**The company recommends it for Restaurants but there are large number of food items served in restaurant, is there any danger to food items too?**

No, for sanitization purpose aqua ozone can be used on regular basis which is recommended for food safety too. However, in case of Triyogani solutions, Triyogani -B is recommended prior to guests entering into restaurant in dinning area while Triyogani-C is recommended for kitchen area prior to start processing material. During the ongoing operations, selected and confined meeting rooms, family areas can be disinfected using aqua-ozone alone.

**What you mean by over-sterilization? How ORCS Disinfection Unit keeps ourselves away from possibility of over-sterilization?**

ORCS Disinfection Unit works on principle of enhanced cleaning process on daily basis which is different from acute disinfection processes with higher biomagnification of toxic chemicals. In the latter process, microbial flora tries to evolve at faster rate leading to generation of drug or disinfectant resistant microbes too. This could be visualized as long term impact of over sterilization cycles similar to antibiotic resistance in last five to seven decades. ORCS uses ozone which is natural and organic sterilant however used in such lower concentration that it should not support such microbial evolution in longer run. We don't recommend Triyogani ozone sterilization cycle for daily basis however should be restricted to exposure of Confined Space to a suspected or confirmed patient. We need to prevent such long term aspects by having procedures that support "appropriate sterilization:" and not "over sterilization".

**Whether this machine works only for COVID-19 prevention only or even work for future pandemics too?**

The machine is designed and developed for both COVID-19 and future pandemics. Keeping same level with respect to safety considerations with respect to ozone, future pandemic might require evolved Triyogani solutions keeping ORCS Disinfection unit as is.

**Whether ORCS Sanitization Unit (Poorn Swachh) can be used in fresh food storage?**

Yes, it can be used as ozonated fog is extremely good sanitizing medium for fresh food storage.

**Use of Ozone is still in nascent stages around the world, is it right? If yes, why one should opt for this technology and how it is better than it's counterparts, if any?**

Use of ozone is still in nascent stages is not right statement, however its' potential is not yet fully explored would be right statement. This is also referred as 'poor man's disinfectant' that works effectively against "poor man's atom bomb" i.e. biological warfare agents. Developed countries are using it meticulously while developing countries have not evolved their regulatory framework to their standards to use it more effectively. COVID-19 shown a need of such long term and effective sustainable solutions in disinfection industry. In comparison to its counterparts like hydrogen peroxide chlorine, HoCl, NaoCL UV-C, it is extremely cost effective, rapid, clean, no recurring cost technology with highest oxidation potential. The reason is that ozone with highest oxidation potential and being gas spreads extremely faster unlike other counterparts predicting effective outcome.

**How ozone remained entrapped once generated in the system, whether it can be released directly into room in higher concentration? What are the safeguards provided?**

Ozone is always released once mixed with water or Triyogani solutions. In case water level is low it will automatically shut off the machine to ensure that ozone is not released alone. The ozone releasing into core system is entrapped as sealed by gel sealant technology provided in “Ultra Swachh PPE Disinfection Unit”. In a worst case scenario due to multiple failures, system keeps on running and ozone is released directly, ozone monitor is provided outside starts causing alarm ensuring safety of personnel operating the machine and it automatically shut down the system. Wait for some time (10-15 minutes) till ozone levels are dispersed and diluted to safe limits. Ozone meter is an essential accessory where bulk operations will be carried out as additional safe guard.

**How is Triyogani (fumigant) is different from conventional fumigants?**

Traditionally, sodium hypochlorite is most commonly used for fumigation. However, it is a toxic chemical which can cause irritation in eyes or skin leading to redness or swelling. It is a powerful oxidant that disintegrates into chlorine and can even damage eyes or lead to respiratory distress when inhaled. Fumigants such as formaldehyde are carcinogenic or cancer causing compounds with potentially lethal effects. Other QUAT based fumigants are irritants for skin, lungs and eyes. Triyogani (fumigant), on the other hand is composed of completely safe and natural herbal extracts which have potent antimicrobial activity. They even help in pest control and overall air purification.

**Do we need any protective equipment while fumigating with Triyogani (fumigant) ?**

Unlike chemical fumigants, there is no requirement of any personal protective equipment as the components are safe. Triyogani (fumigant), can be safely used in domestic settings with no risks for children or elderly. Fumigation can be performed without any technical assistance or additional guidance.

**What is the recommended dilution of Triyogani (fumigant)?**

We recommend a dilution of 1:250 or 4ml in 1 liter solution for fumigation. At this concentration, the fumigant is highly effective against bacteria, fungi, molds and resistant bacteria. The Triyogani (fumigant) require shorter exposure time and have prolonged residual activity for hours after fumigation.

**Is Triyogani (fumigant) as effective as chemical treatments?**

Yes, our herbal fumigant is formulated with a proprietary blend of naturally derived herbs such as Neem, lemongrass and thyme which demonstrate with up to 4 logarithmic (more than 99.99%) reduction in air borne bacteria. There is significant reduction in microbial count or cfu/m<sup>3</sup> of air thus improving the overall air quality even at very low concentrations of the herb extract. A comprehensive meta-analysis performed has revealed medicinal properties of these individual extracts. For instance, Neem which is native to indian subcontinent has strong antibacterial, antifungal and antiviral properties. Similarly, thymol derived from the plant *Thymus vulgaris* or thyme has been shown effective against HIV and HSV viral strains. It has strong antioxidant properties while being safe for the environment.

**Are there any other non-toxic alternatives for fumigants and how do Triyogani (fumigant) fare against them?**

There are a few alternatives to non-toxic fumigants but each of these come along with disadvantages. For instance, UV light is proposed as a non-chemical alternative for sterilization. However, exposure to UV is harmful for skin and eyes and UV treatment requires additional safety precautions to ensure no human exposure during the treatment. Therefore its use is not recommended in domestic settings. Other methods like cold plasma, CO<sub>2</sub> fumigation are expensive methods requiring longer exposure durations and technical expertise for operation. Compared to other methods, Triyogani (fumigant) is highly effective, and safe for both environment and human exposure.

### **What actually buyer gets in the package while procuring ORCS Sanitization Unit (Poorn Swachh)?**

Buyer's gets following items: (1) ORCS Sanitization Unit (Poorn Swachh); (2) Extensor Pipe for vehicle sanitization; (3) Pack of 30 strips of Ozone Chemical Indicator (referred as OS Strips); (4) 100 ml each of Triyogani (Fumigant) & Triyogani (Fruits & Veggie Wash) and; (5) Instructions Manual.

### **Is there any anti-microbial activity of Triyogani (Fumigant) Solution reported?**

As per Rule 150- E(f) Under Drugs and Cosmetic Rules 1945, the Triyogani (Fumigant) Solution is tested & found to have antimicrobial activity against *E.coli*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Candida albicans* and *Aspergillus niger*.

### **Whether ozone is reported to kill corona virus?**

Japanese researchers proven to kill Corona Virus (Covid-19) at lower concentrations (0.05 - 0.1 ppm) with prolonged exposure time (<https://nenow.in/top-news/japanese-researchers-says-low-concentration-of-ozone-effective-in-neutralizing-coronavirus.html>).

### **How ORCS Sanitization Unit (Poorn Swachh) works using combination of both ozone and Triyogani (Fumigant) solution?**

The device works on combination of Ozone and Triyogani (Fumigant). Even at these lower concentration of ozone (within permissible levels for human exposure as per OSHA standard) when combined with Triyogani (fumigant), able to kill *Geobacillus stearothermophilus* spores in less than 20 minutes of direct exposure. The bacterial spores are referred sterility indicators in steam sterilization and ozone sterilization devices, thereby their neutralization is considered as achievement of Sterility Assurance Level (SAL). On the other hand, Triyogani (Fumigant) will be referred as syn ozone formulation works in synergistic manner with ozone.

### **Whether Triyognated Ozone is tested under real time conditions of Confined Space?**

Yes, the treatment of Confined Space (15 X 20 sq foot area) is tested with default levels of ozone in ORCS Sanitization Unit (Poorn Swachh) set at max with 2% Triyogani (fumigant) solution against plethora of microbial cocktail. It takes 20 minutes to fill the room achieving 90-95% humidity level with contact time of 10 minutes (post filling). The test revealed that Log 4.0 reduction is achieved in case of each microbial coating.

### **Consider a standard room of 12 X 12 X 10 Ft and ORCS- Sanitization Unit is deployed (ideal: no air leak is assumed), what amount of Triyogani (fumigant) should be added so that the diluted concentration in terms of aqueous ozonated fog (ozone is set to max) inside the room is effective in neutralizing microbes? What should be delay time to ensure effective contact time?**

Add 4 ml /Liter of Triyogani (fumigant) in tank with ozone set to max level as well as humidity meter to ~95% humidity level, the machine will be left in ON state. The machine will automatically shuts off once humidity level is reached within time span of 20 minutes. Remove the machine after 10 minutes of contact delay time once the machine shuts off automatically. The same level of Triyogani solution is applicable from 50,000 - 2,00,000 Lakh liters of volume of Confined Space (applicable to various dimensions of Confined Space).