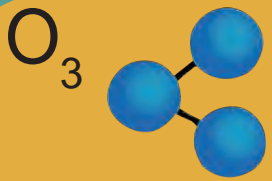




An ISO 13485 : 2016 Company

# We are proudly introducing



## Ozone can be used to destroy the New Coronavirus and Disinfect Areas

-Fujita Health University, Japan

### New Japanese technology



Disinfection activity using ozone gas (O<sub>3</sub>) is extremely effective in destroying covid 19 virus / bacteria / fungus etc. during this critical pandemic situation. Our houses, Offices, Other Establishments, Vehicles etc. can be disinfected by this method and made secure without the usage of any kind of chemical liquid.





## HISTORY OF O<sub>3</sub> GAS(OZONE GAS)

In 1785, the Dutch chemist Martinus Van Marum was conducting experiments involving electrical sparking above water when he noticed an unusual smell, which he attributed to the electrical reactions, failing to realize that he had in fact created ozone. A half century later, Christian Friedrich Schonbein, noticed the same pungent odour and recognized it as the smell often following a bolt of lightning. In 1839, he succeeded in isolating the gaseous chemical and named it 'ozone', from the Greek word ozein(ὄζειν) meaning 'to smell'. For this reason, Schonbein is generally credited with the discovery of ozone. The formula for ozone O<sub>3</sub> was not determined until 1865 by Jacques-Louis Soret and confirmed by Schonbein in 1867.

## WHAT IS O<sub>3</sub> GAS (OZONE GAS)

Ozone or Trioxxygen is an inorganic molecule with the chemical formula O<sub>3</sub>. It is a pale blue gas with a distinctively pungent smell. It is an allotrope of oxygen that is much less stable than the diatomic allotrope O<sub>2</sub>, breaking down in the lower atmosphere to O<sub>2</sub>. (dioxygen) Ozone is formed from dioxygen by the action of ultraviolet (UV) light and electrical discharged within the Earth's atmosphere. It is present in very low concentrations throughout the latter, with its highest concentration high in the ozone layer of the atmosphere, which absorbs most of the Sun's ultraviolet (UV) radiation.



## Japanese researchers say ozone effective in neutralizing coronavirus

Japanese researchers said that low concentrations of ozone can neutralize coronavirus particles, potentially providing a way to disinfect rooms and waiting areas.

Scientists at **Fujita Health University, Japan** told a news conference they had proven that ozone gas could kill the coronavirus.

The experiment used an ozone generator in a sealed chamber with a sample of coronavirus.

The potency of the virus declined by more than 90 percent when subjected to low level ozone for 10 hours.

"Transmission of the novel coronavirus may be reduced by continuous, low-concentration ozone treatment, even in environments where people are present, using this kind of system," said lead researcher **Takayuki Murata**.

"We found it to be particularly effective in high-humidity conditions."

Ozone, a type of oxygen molecule, is known to inactivate many pathogens, and previous experiments have shown that high concentrations, between 1-6 ppm, were effective against the coronavirus.

'A new study Conducted by researchers at the **Georgia Institute of Technology, USA** shows that Ozone gas, could provide a safe means for disinfecting certain types of personal protective equipment that are in high demand for shielding healthcare personnel from Covid19.'



In this special pandemic situation, Ozone (O<sub>3</sub>) Disinfection is the latest technology to safeguard our rooms, offices, hospitals, vehicles etc. from Covid 19 viruses, bacteria, fungus etc.



Studies have proved that disinfection using Ozone (O<sub>3</sub>) is several times effective than any other types of disinfection to kill viruses like Covid 19. Nowadays, sterilization / purification treatment using this technology is being carried out in all parts of the world. At present, this technology is being used very effectively in other foreign countries which have been affected by Covid 19, to fight against the virus.



PURE & CARE O<sub>3</sub> GERM EXTINGUISHER which produces O<sub>3</sub> gas, has been designed & developed by our research & Development wing to help overcome this Pandemic situation efficiently. This system works on the principle of producing 3 oxygen atoms by dividing the atmospheric air by electrifying the same. By operating our PURE & CARE O<sub>3</sub> GERM EXTINGUISHER which is available in Plug & Play mode for just 30 minutes you can disinfect the required place, your rooms, vehicles etc. Disinfection of your rooms and other areas using O<sub>3</sub> gas which is developed naturally without the usage of any chemicals ensures 99.98% disinfection. Moreover, the operating cost of this system is extremely low which is a specialty of the system.



### OUR CREDENTIALS

- ISO 13485 : 2016 ( Medical Devices Quality Management System) from Global Accreditation Certification Board- GACB
- CE Certificate of Compliance – European Standard
- US FDA Certificate of Compliance – Covid 19 Code of Federal Regulations 21 CFR 801.415
- QCS Certification – Quality Conformity Systems
- RoHS Certification – International Quality Certification UK Ltd.



WE HAVE OBTAINED APPROVALS TO MARKET THE PRODUCT IN INDIA AS WELL AS TO EXPORT TO OTHER COUNTRIES



## OUR GUARANTEE

PURE & CARE O<sub>3</sub> GERM EXTINGUISHER

- 1 year Replacement Guarantee
- 10 year Service Warranty



# PURE & CARE O<sub>3</sub> GERM EXTINGUISHER

## PRODUCT INFORMATION

YOU CAN EASILY CHOOSE THE REQUIRED MODEL AS PER ROOM SIZE

MODEL NO	COVERAGE AREA	WORKING POWER	REQUIRED WORKING TIME
MG I	180 Sqft	200W-230 V AC	30 Mints
MG II	360 Sqft	400W-230 V AC	30 Mints
MG III	540 Sqft	600W-230 V AC	30 Mints
MG IV	900 Sqft	1000W-230 V AC	30 Mints
HANDY CAR CLEAN	CAR INTERIOR (SUV,SEDAN,HATCHBACK)	120W-12 V DC	15-30 Mints



# Ozone ( $O_3$ ): covid-19 chemistry

Ozone is a naturally occurring gas created from Oxygen atoms. The oxygen molecule is made up of two oxygen atoms. These oxygen molecules are broken into atoms by the corona discharge during lightning storms or by UV light from the Sun. Single oxygen atoms cannot exist alone without regrouping back into di-atomic oxygen molecules. During this recombination stage some atoms will regroup into loosely bonded tri-atomic oxygen. This new molecule is called Ozone or  $O_3$ .

The antipathogenic effects of ozone have been substantiated for several decades. Its killing action upon bacteria, viruses, fungi, and in many species of protozoa, serves as the basis for its increasing use as a Disinfectant.

Most research efforts on Ozone's virucidal effect have centered upon ozone's propensity to break apart lipid molecules at sites of multiple bond configuration. Indeed once the lipid envelope of the virus is fragmented; its DNA or RNA core cannot survive.

Ozone gas has been proved to kill the SARS coronavirus and since the structure of the new 2019-nCoV coronavirus is almost identical to that of the SARS coronavirus, recent researches in Japan etc. recommend the use of ozone as a Disinfectant against Corona Virus.

Ozone generators are able to make ozone from normal air and are normally used as room disinfectants.

## Is Ozone Safe?

US FDA allows Ozone as a germicide for disinfection purposes.

Ozone leaves no harmful residuals that need to be removed after the disinfection process.

Ozone gets converted into Oxygen ( $O_2$ ) rapidly; fill the area where disinfection was carried out.

There should not be any human presence during the short period of usage of the disinfection device. At the same time, all the household materials/office stationaries including computers etc. can be kept as it is, inside the room.

When the Ozone ( $O_3$ ) turns back to normal Oxygen ( $O_2$ ) in approx: 10 minutes, we can return back to the area where Disinfection was carried out and experience Virus-Free, Germ-Free and Odor-Free environment.

## Is Ozone Disinfection Effective?

Ozone is nature's most powerful Disinfectant killing up to 99% of bacteria, viruses, allergens, moulds and other pollutants from both air and surfaces in any indoor environment.

Ozone disinfection is over 50% more effective than using chemicals and over 3,000 times faster acting than disinfection with other chemical preparations.

"Ozone is one of the friendliest and cleanest ways of deactivating viruses and killing most any pathogen. It does not leave a residue; It's easy to generate from atmospheric air, and it's easy to use from an equipment perspective."

M.G. Finn, Study Lead Author and Chair Person, Georgia Tech's School  
of Chemistry and Biochemistry



## **PURE & CARE O<sub>3</sub> GERM EXTINGUISHER**

(Models-MG I, MG II, MG III & MG IV)

### **WORKING PROCEDURE**

Pure & Care O<sub>3</sub> germ extinguisher uses simple “plug and play” mode to operate.

Operations can be controlled remotely through mobile phone app

- ✓ Plug the O<sub>3</sub> germ extinguisher inside the room where disinfection is required.
- ✓ Close all the windows and doors of the room and turn on the ac, if present in the room/office and let all the household items / office stationaries remain in the room itself.
- ✓ Preset the time on the keypad for the disinfection process (15 mints to 90 mints)
- ✓ Press the start button and a beep sound starts which lasts for 20 seconds which is intimation for the person operating the machine to leave the room.
- ✓ After 20 secs, beep sound stops and the disinfection process commences, room gets filled with the ozone gas produced on site and this process lasts until the preset time is reached.
- ✓ On reaching the preset time, another beep sound starts that lasts for 10 secs which is intimation that the disinfection process has been completed.
- ✓ Now, after an interval of 5 minutes, the person can open the door and subsequently after 5 minutes enter the room and open the windows of the room. Wait another 10 minutes for fresh air to enter.
- ✓ When oxygen enters the room through the doors & windows, the ozone molecules gets converted to oxygen molecules and we can experience a virus free, germ free and odour free environment inside the room.

NB: No persons allowed inside the room when the disinfection process is going on. The model of the product to be selected as per room size only. (bigger capacity models not to be selected for smaller rooms)

## **PURE & CARE O<sub>3</sub> GERM EXTINGUISHER**

(HANDY CAR CLEAN)

### **WORKING PROCEDURE**

Disinfecting the interior of your car is as simple as recharging a mobile phone inside the car.

- ✓ Plug-in the O<sub>3</sub> germ extinguisher cable into the cigar lighter socket or any other socket where dedicated 12V DC supply is available.
- ✓ Roll- up all the glass windows of the car, start the engine, turn on ac and select the mode for car inside air circulation.
- ✓ Now, preset the time (15 to 30 minutes) and press the start button of the O<sub>3</sub> germ extinguisher and exit from the car
- ✓ The disinfection process commences and completes when the preset time is reached.
- ✓ Now, after an interval of 5 minutes the doors of the car can be opened, turn off ac and switch off the engine.
- ✓ Subsequently, after an interval of 5 minutes, driver can return back to the car, roll- down all the glass windows and keep the doors open. Wait another 5 minutes for fresh air to enter.
- ✓ Now oxygen will enter the vehicle through the open doors & windows. The ozone molecules gets converted to oxygen molecules and we can experience a virus free, germ free and odour free environment inside the vehicle.

NB: No persons allowed inside the vehicle when the disinfection process is going on.



### WHO ALL CAN USE IT ?

**PURE & CARE O<sub>3</sub> GERM EXTINGUISHER** can be used for disinfection in all kinds of places where human presence occur like,

- ☞ **OFFICES**
- ☞ **HOUSES**
- ☞ **HOTELS**
- ☞ **RESTAURANTS**
- ☞ **HOSPITALS**
- ☞ **SCHOOLS**
- ☞ **FACTORIES**
- ☞ **SHOPS**
- ☞ **OTHER ESTABLISHMENTS**
- ☞ **BANKS**
- ☞ **TRAIN, METRO RAIL,**
- ☞ **BUS, CAR**
- ☞ **HOUSE BOATS**
- ☞ **SHIPS**
- ☞ **FLIGHTS etc.**



**PURE & CARE O<sub>3</sub> GERM EXTINGUISHER**  
Disinfection technology using ozone,  
as recommended by researchers at Fujita health university, Japan and  
Georgia institute of technology, USA



**Right Choice DISINFECTANT DEVICE  
TO TACKLE THE CURRENT COVID 19 PANDEMIC**



MANUFACTURED BY

**HINDUSTAN MEDICARE EQUIPMENTS INTERNATIONAL**  
(A DIVISION OF HINDUSTAN AUTO HUB CONSORTIUM)

LICENSED BY DRUGS CONTROL DEPARTMENT GOVERNMENT OF KERALA  
39/4140, MG ROAD, RAVIPURAM, COCHIN- 682016, KERALA, INDIA  
EMAIL: sales@hindustanmedicare.com  
Ph: +91 9895281904, 9846281905  
Web : www.hindustanmedicare.com

NCS GROUP OF COMPANY

