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To whom it may concern:

As leaders in the field of ozone therapy for more than 20 years, our company has done extensive research on the ability of Ozone to **disinfect areas and surfaces**. We share with you an independent study conducted by **Enviro Labs Limited**, which confirms and attests to the disinfecting properties of ozone by way of clinical tests that were performed during the SARS-virus outbreak.

Ozone is a well-known powerful oxidizer which could kill micro-organisms effectively. Ozone applications in water and wastewater treatments are well- documented and it is widely used by most of the modern cities. Although studies for using ozone to disinfect air are relatively limited, experimental results indicate that ozone could also be just as effective in air disinfectant as in water. For example, Kowalski et al. investigated the bactericidal effects of high ozone concentrations on E.coli & S.aureus and concluded that more than 99.99% death rate was achieved for both species after ozonation.

In addition to the strong oxidizing power of ozone, properties of ozone also help it to be an ideal aerial disinfectant. In contrast to UV radiation and HEPA filter, ozone is a gas that could penetrate to every corner of the room, thus it could disinfect the entire room effectively. As ozone is unstable, it is readily converted back to oxygen, leaving no harmful residual ozone after disinfection.

Disinfection capacity of ozone

Ozone (O₃) is an unstable gas, comprising three atoms of oxygen atoms or free radicals. The free oxygen atoms or radicals are highly re-active and they will oxidize almost anything (including viruses, bacteria, organic and inorganic compounds) in contacts, making ozone an enormously powerful disinfectant and oxidizer.

In fact, ozone is a much stronger oxidizer than other common disinfectants such as chlorine and hypochlorite. The usage of chlorine or hypochlorite in many countries has been decreased significantly due to the possibility formation of carcinogenic by-products such as trihalomethanes (THM) during the disinfection process. In contrast, ozone disinfection does not produce any harmful residues, and all the residual ozone will be converted back to oxygen within a short time. Ozone is therefore considered as an environmentally friendly disinfectant.

Given its superior strength and effectiveness as an oxidant and biocide, ozone becomes one of the dominant water treatment technologies in Europe and America.

The WHO confirms that ozone concentrations between 0.04ppm – 0.08ppm (particles per million) is deemed safe to breath for 8 consecutive hours.

TABLE 1
International Comparison of Ambient Air Quality Standards and Guidelines,²¹
as compared with recommendations of the World Health Organization (WHO)

POLLUTANT	WORLD HEALTH ORG	EUROPEAN UNION	AUSTRALIA	UNITED STATES	CANADA
Ozone 8 hour, parts per billion	50	60	80	80	65
Fine particulate 24 hour, micrograms per cubic meter	25	50	25	65	30
Sulphur dioxide 24 hour, ppb	8	48	80	140	115
Nitrogen dioxide Annual, ppb	21	21	30	53	53
Carbon monoxide 8 hour, ppm	9	9	9	9	13
Lead Micrograms per cubic meter	–	0.5	0.5	1.5	–

NOTE: A dash (–) indicates that no standard or guideline has been established for a particular parameter.

The Ozone Elite has been tested & certified to produce 0.05ppm ozone consistently. Therefore safe for breathing and sterilisation of rooms.

In conclusion the Ozone Elite is not only safe to use, but also a highly effective steriliser and oxidiser of viruses, bacteria, parasites and inorganic compound.