



COVID-19 SAFE & ECO-FRIENDLY DISINFECTION PROGRAM





COVID-19 Response

1. Eco and Human Safe
2. Air and Surface Kill
3. Customer Experience Friendly
4. Fastest Application Time
5. Does Not Require Outsourced Labor
6. Safe on Materials & Equipment



About ATS

FOUNDED IN 1979 AND SPECIALIZES IN:

- Commercial disinfection and sanitization
- Water, wastewater and industrial water treatment technologies
- Industrial safety showers
- Agricultural chemicals, nutrition and technology



TwinOxide CLO2



- Chlorine Dioxide (ClO_2) is referred to as the “ideal biocide” because of its unique combination of safety and power.
- Strong antimicrobial and antiviral surface & air sanitization and disinfection
- Was the chosen remedial chemical agent to combat the 2001 biological anthrax attacks on the US Government
- Contains 0% free chlorine
- Non-toxic, non-corrosive
- Spray and leave, no need to wipe down



Poisonings up at home during coronavirus pandemic

Some people are using too many chemicals to clean, which can be a dangerous combination.

Author: Tim Miller
Published: 10:25 AM EDT May 19, 2020
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COVID-19: Poison control centers report surge in accidental poisonings from cleaning products

By Catherine M. Radwan
May 1, 2020

HEALTH NEWS

✓ Fact Checked

Americans Are Accidentally Poisoning Themselves with Cleaning Supplies



Accidental poisonings from bleach and other disinfectants spiked amid coronavirus

BY JOHN BOWDEN - 05/12/20 11:01 AM EDT

1,063 COMMENT



UNIVERSITY OF
MICHIGAN

Issues Of The Environment: Chemical Impacts In Fighting The Spread Of COVID-19

By DAVID FAIR • MAR 25, 2020

The majority of products used to disinfect against COVID-19 that meet EPA's criteria for use against SARS-CoV-2, the cause of [COVID-19](#), contain the active ingredient [Quaternary ammonium](#). Others contain mixtures of [Hydrogen Peroxide](#), [Peroxyacetic Acid](#), [Isopropanol](#), [Ethanol](#), [Sodium hypochlorite](#), [Octanoic acid](#), [Phenolic](#), [Triethylene glycol](#), [L-Lactic Acid](#), [Glycolic Acid](#), or [Dischloroisocyanurate dihydrate](#).

Certain of these compounds, particularly the most common--Quaternary ammonium and Sodium hypochlorite (bleach)-- have been studied and shown to have negative health effects when used regularly. Longitudinal research has looked specifically at exposure to glutaraldehyde, bleach, hydrogen peroxide, alcohol and quaternary ammonium compounds (quats). All of these were associated with an increased risk of COPD of between 24% and 32%. They also contribute to poor indoor air quality that can aggravate asthma in children. QUATs have also been shown to possibly cause fertility issues in men.

[According to EPA](#), fetuses and very young children are particularly sensitive to the effects of toxic chemicals. During early development, growth is rapid and organs, especially the brain, are developing. In the US, researchers estimate that 5% of childhood cancer and 30% of childhood asthma are related to chemical exposures. Best practices for using chemical sanitizers when they are needed, include rinsing items with water and drying them after the chemicals are applied, according to the EPA.



Application Safety

- Personal Protective Equipment (PPE) not required
- Can be applied with people present
- Non-irritant for eyes and skin
- Non-corrosive to surfaces (pH is above 6)
- Generally regarded as safe (GRAS)
- Pet and Plant-safe
- Do not drink





Surfaces Continued...

Rooms

- Telephones
- Remotes
- Desks
- Televisions
- Lamps
- Refrigerators
- Trash Cans
- Mirrors
- Sink and Faucet
- Tub and Shower
- Towels
- And much more

Common Areas

- Counter Tops
- Chairs
- Gym Equipment
- Door Handles
- Elevator Buttons
- Handrails
- Carpets and Flooring
- Glass
- Luggage Carts
- Patio Furniture
- Key Cards
- And much more

Bathrooms

Gyms

Lobbies

Poolside

Restaurants

Guest Rooms

Rooms

Office Centers

Shops

100% pass for chemical compatibility & corrosivity testing

BOEING SPECIFICATION SUPPORT STANDARD BSS7434 CHEMICAL COMPATIBILITY OF CLEANING PRODUCTS AND INTERIOR PARTS/MATERIALS OF COMMERCIAL TRANSPORT AIRCRAFT (Version: Original issue, 04-Jun-2019) Supersedes Boeing D6-7127 (Note: Boeing D6-7127 was cancelled and superseded by BSS7434 on 04-Jun-2019)		
5.1	Sandwich Corrosion	Conforms
5.2	Immersion Corrosion Test	Conforms
5.3	Rubber Test	Conforms
5.4	Sealant Test	Conforms
5.5	Painted Surface Test	Conforms
5.6	Tedlar Surface Test	Conforms
5.7	Vinyl Surface Test	Conforms
5.8	Fabric and Carpet Test	Conforms
5.9	Leather and Naugahyde Test	Conforms
5.10	Flash Point Test	Informational
5.11	Polycarbonate Crazing Test	Conforms



Seamless Integration to Business

- Disinfection with existing staff and resources
- Avoids expensive outsourced Jan-san labor services
- Disinfect without disrupting normal business operations
- No Personal Protection Equipment (PPE) required
- Faster to apply than any alternative disinfectant solutions
- A variety of container sizes are available
- No need to wipe after applying



Summary

- Twin Oxide will provide a safe, disinfected and sanitized environment for all Marriott staff and patrons
- Twin Oxide will ensure that Marriott Properties will provide peace of mind and security
- Twin Oxide will eliminate all microbiological contaminants
- Twin Oxide is safe on materials and leave no post treatment residuals