

Viol-Oxy® The Most Effective Virus Disinfectant



FEATURES

- New and unique disinfection product,
- Multicomponent oxidizing formulation,
- Disinfection of Viruses, Bacteria and Fungi.
- Supplied as Powder,
- Based on environment friendly oxidation and photodegradation,
- High Oxidation Potential (ORP) 5,5V,
- UV photodegradation of DNA and RNA

BENEFITS

- Fast acting – in minutes,
- High efficacy against
 - bacteria $\geq \log 5$
 - viruses $\geq \log 4$, including COVID-19,
- Safe & easy to use, store and deliver,
 - Dilute in water and use,
 - Creates No harmful vapors
 - Non-irritant to skin and eyes,
- Environmentally friendly,
- Compatible with most materials & surfaces when properly used,
- Broad variety of applications:
 - Surface Disinfection
 - Air Disinfection
 - Whole Building Disinfection
 - Mold & Fungi Control
 - Odor Control
 - Water Treatment
 - Waste Water Treatment
 - All Veterinary Sector

Disinfection & Control of

- Bacteria
- Viruses
- Fungi & Molds
- Organics
- Odors

What is Viol-Oxy?

The **Viol-Oxy®** range of science is sulfate radical-based technology for human and animal health (biosecurity). Especially designed and manufactured to provide a highly effective, rapid-acting, safe and convenient, advanced formulated disinfectant process for various applications. Chlorine-based disinfectants are generally not effective at the inactivation of "Cryptosporidium" Disinfection and effectiveness of all conventional biocides have a very low Oxidation/Reduction Potential (ORP) of about 700 mV, and it is just too low. Watch Water® suggests that ORP is more important for the inactivation of Bacteria and Viruses. This makes **Viol-Oxy®** so unique because of the multicomponent oxidizing formulation. Screened crystalline Titanium Dioxide (TiO₂) in the form of Titansorb-P, produces a photocatalytic reaction to form Reactive Qxygen Species (ROS) which in turn damage the viral functions of viruses when in contact with Titansorb-P surface. Thus **Viol-Oxy®** has multiple mode of action that can operate simultaneously – Adsorption, Trapping, Reactive Oxygen species and Photochemistry. **Viol-Oxy®** has been tested according to EN 13727 Bactericidal Activity, and EN 14476 and has shown activity against Bovine Corona viruses. Therefore one can assume an activity against Corona virus including the new Corona virus strain (SRAS-CoV-2).

Applications

- Surface Disinfection
- Whole Building Disinfection
- Odor Control
- Water & Waste Water Treatment
- Air Treatment
- Veterinary Sector

Catalytic Mechanism

Potassium Pentasulfate and Hydrogen peroxy along with a Titanium-based catalyst, create two key active radicals with Oxidation potential (V):
1 – Sulfate radical with Oxidation potential 2,8V,
2 – Hyrdroxyl radical with Oxidation potential 2,7V,
With total Oxidation potential of 5,5V.
The Advanced Oxidation Process (AOP) of **Viol-Oxy®** generates very strong reactive radicals which are capable of inactivating Microorganisms and oxidize complex organic molecules and to mineralize them 100% No other oxidant has a higher oxidation potential (5,5V) than all common disinfectants such as Chlorine, chlorine dioxide, ozone and many others.

Photocatalytic Reaction

The photocatalytic reaction of the TiO₂ based Titansorb-P in the formulation of **Viol-Oxy®** causes the destruction of the outer membrane of any bacteria as well as the degradation of all toxic compounds subsequently released from the dead cells. Adsorption of the viruses on TiO₂ surface and 100% photodegradation of DNA and RNA, the base of all viruses.

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