A SUPERIOR & SAFE ENVIRONMENTAL SOLUTION IN THE BIOLOGICAL **DISINFECTION &** DEODORIZATION OF WATER

- INSTANT MICROBIOCIDE, VIRUCIDE, FUNGICIDE, & SPORACIDE.
- LICENSED IN GERMANY FOR USE IN DRINKING WATER.
- POWERFUL IN ELIMINATING & PREVENTING ALGAE WHILE BEING SAFE FOR AQUATIC LIFE.
- IMPROVES AQUATIC LIFE ENVIRONMENTS & IDEAL FOR HUMAN CONTACT.
- NO DISINFECTION BYPRODUCTS OR RESIDUES.
- SAVES WATER & USED WITH NO INTERRUPTIONS OR EVACUATION.
- SUITABLE IN ALL PIPES & TEMPERATURES.



A SAFE, ALL ENCOMPASSING, INNOVATIVE SOLUTION FOR ALL WATER PROJECTS

An alternative to water disinfectants such as chlorine with significantly higher specs and applications; **ANOSAN TW**® offers a safe, instant microbiocide and fungicide in any pipes and any temperature of water killing all germs including viruses indiscriminately without promotion of resistance.

ANOSAN TW® can be used with no interruptions of water usage or special precautions, is pH neutral, and does not cause precipitation of lime.

ANOSAN TW® can enter water systems safely with no additional safety measures, while also being effective against hormone & antibiotic residues.

Legionella infection of pipes can also be countered with **ANOSAN TW**® and with no structural changes or evacuation necessary while maintaining healthy pipes.

ANOSAN TW® is non-toxic and can be used with the presence of aquatic life, enhancing the marine environment and removing pathogens, toxic algae, and viruses that often end up reaching publicly used water areas, such as beaches through treated sewage water or shipping vessels.

ANOSAN TW® is ideal in water recycling projects as it does not change the composition of water chemically in any way, unlike other common disinfectants; while also being a powerful virucide which commonly used disinfectants such as chlorine lack.



ANOSAN TW® promotes the health of pipes and water systems by eliminating & preventing biofilm build up which can cause microbial corrosion / MIC to pipe systems.

ANOSAN TW® offers strong deodorization benefits and can maintain a healthy and odorless water quality in pipe systems with bacterial odor issues.

ANOSAN TW® offers unparalleled clarity to water bodies to showcase aesthetic specs such as exotic fish or aquatic plants, while providing the ideal ecosystem for them to thrive.



Al Nakheel Park Lake by Dubai Municiplity

Small water body sample, Germany

Concentration of 0,1% of ANOSAN TW®
Exposure time of 1-2 days



ANOSAN TW® REDEFINING WATER QUALITY & SANITATION

DISINFECTION	ANOSAN TW® sodium hypochlorite < 0.1%	SODIUM HYPOCHLORITE	OXIDIZING AGENTS / HYDROGEN PEROXIDE	CHLORINE & CHLORAMINE	OZONATION	QUATERNARY AMMONIUM COMPOUNDS	ULTRAVIOLET
MICROBIOLOGY	Bactericidal Virucidal Fungicidal Sporicidal No promotion of resistance	Bactericidal Virucidal Fungicidal Sporicidal(+/-)	Bactericidal Virucidal Fungicidal Sporicidal(+/-)	Bactericidal Virucidal (+/-) Protozoa(+/-)	Bactericidal Virucidal Protozoa(+/-)	Bactericidal(+/-) Virucidal(+/-) Fungicidal	Bactericidal Virucidal(+/-) Fungicidal
ADVANTAGES/ DISADVANTAGES	No Disadvantage, Eliminates Antibiotic Residues, Eliminates Biofilm Non corrosive Powerfully breaks the cycle of algae blooms	Does not Eliminate Antibiotic Residues, Does not eliminate biofilm, Very corrosive, decompose	Corrosive to skin, eyes, and mucous membranes at high concentrations (>%10). reacts with oxidizable materials, iron, copper, brass, bronze, chromium, zinc, lead, manganese, and silver. Contact with organic materials may result in spontaneous combustion.	Known to cause skin and eye irritation. Should not reach ground water. Danger to drinking water Personal hygiene practice required	Flammable Hazardous in case of ingestion, of inhalation. Requires long contact time	Precipitate in the presence of anionic derivative.	Does not eliminate pharmaceutical products or biofilm. Only works if the water is clear

++ = very good efficacy, + = effective, (+) = gaps in effectiveness, - = not effective



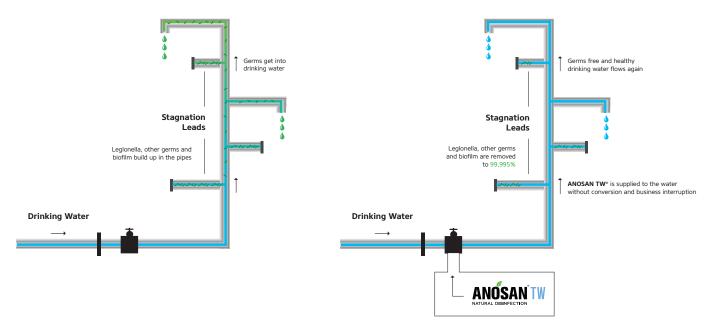
ECABIOPOOL®, a swimming pool & aqua park system developed by Ecabiotec® combines **ANOSAN TW**®'s unparalleled specifications with nanotechnology to reduce disinfection costs for swimming pools going chlorine-free and offer a hypoallergenic, goggle-free experience with eliminated infection potential & algae protection for pools.

The **ECABIOPOOL**® system also covers parasites such as cryptosporidium and other common sanitation challenges for pools, while avoiding the harsh dermal & neurotoxic effects of chlorine.

PIPES IN BUILDINGS

Pathogens accumulate in stagnant pipes and affect the entire water system, **ANOSAN TW**® kills germs instantly and reliably, furthermore removing the biofilm and preventing future accumulation with consistent dosing through our basic offered dosing stations, with no halts or special procedures beyond this installation.

ANOSAN TW® is the ONLY market available solution to Legionella in pipes that is cheap, non-toxic, and not requiring building evacuation.



- Kills 99.995% of bacteria, virus, fungi and spores
- Non-toxic disinfectant & deodorizer
- Free of alcohol, aldehydes, dyes & scents, non-staining
- Hypoallergenic & non-irritant
- pH neutral
- Cost & time effective with immediate disinfection

AREAS OF APPLICATION FOR ANOSAN TW®

- Pipes in Homes & Buildings
- Treatment of Drinking Water
- Swimming Pool Disinfection
- Water Bodies such as Lakes & Rivers
- Military Usage & Survival Kits
- Sewage treatment & water recycling
- Legionella elimination & protection
- Water Tank Disinfection

Camping facilities

WATER TANK DISINFECTION

ANOSAN TW® saves water and eliminates common water wastage in excessive water flushing; a common component with chlorine disinfection.

Legionella Pneumophila is particularly common at warm times of the year, when the summer heat boosts its ability to grow in air-conditioning systems and in water tanks and fittings.

Unlike UV disinfection in water tanks, **ANOSAN TW**® additionally works on the entire pipe system and disinfects instantly at any temperature, while removing and preventing the accumulation of biofilm - All in a significantly more cost-effective route.



In accordance to: EN 1276 EN 13697 EN 14476

WATER BODIES

Ecabiotec Middle East can collaborate with existing contractors to offer solutions for park water bodies and turf, as well as bringing onboard our preferred collaborators on projects without existing contracted management.

Large water body treatment with ANOSAN TW® looks at various variables including:

- Hot climate leading to high evaporation, wet climates leading to additional water entering the lake.
- Disinfection needs versus stability needs.

Ecabiotec offers free consultation for product users on waterbodies to decide on an ideal solution, whether it's dosing through a basic dosing station or a facilities management solution entailing machine installation directly filling the water bodies with treated water.

For private water bodies or water bodies in parks, installation upon consultation of dosing stations would suffice which and is our most common scenario.

Disinfection with ANOSAN TW® is safe for aquatic life and creates a harmonious, natural water ecosystem safe for drinking of birds or wildlife.



AQUACULTURE

The benefits of **ANOSAN TW**® are many in the water quality control aspect and preventing infection among fish in fish farms, offering a reduction antibiotic use all without affecting water parameters and being non residual. Fish are kept in a tighter environment with the quality of water affecting fish health and infection rate potential. Algae blooms are a common complaint in aquaculture, which would additionally be eliminated & prevented.

Observable evidence has been documented in the thriving of fish in water bodies / park projects with **ANOSAN TW**® treatment due to removal of infection elements that would affect their overall health & life cycle.

CAMPING & SURVIVAL KITS

ANOSAN TW® offers a combination of high versatility & safety in biological water disinfection of military needs. The portable nature of the solution offers opportunities in dosing strategies and developed usage in the midst of change; often an important factor in retaining biosecurity in military bases and scenarios.

Additionally, ANOSAN TW® in existing survival kits a water addition as a safer, faster, better tasting and superior disinfectant to water purification tablets while additionally acting as an instant virucidal agent.



ANOSAN TW® APPLICATION & DILUTION

Water Tank / Pipeline Disinfection

Treatment dose: Pour **ANOSAN TW**® directly in the tank with dilution 1:100 wait for 15 minutes till an ORP of 650 is achieved. Maintenance dose by an automated dosing stations provided by Ecabiotec®: 1:1000 daily *"for example: For every 1000 Litre of incoming water we dose 1 L of ANOSAN TW"*

Water Features (Lakes / Ponds / Fountains):

Treatment phase (Day 1): Once neutral pH is achieved pour **ANOSAN TW**® directly in the lake/pond with dilution 1:1000. For fountains an ORP of 550 and above is needed. Maintenance phase (Day 2 onward): Manually or by an automated dosing stations provided by Ecabiotec®: 1:1000 daily *"For every 1000 Litre of incoming water we dose 1 L of ANOSAN TW"*

• pH level recommended to be measured twice a week with acidity adjustments to ensure efficacy and remain in a pH.

neutral range for ideal fast results. For fountains an ORP level of 550 to be maintained.

- Maintenance dose can be lowered after 6 months based on condition of the water body and seasonal variation.
- During the initial phase of treatment algae will resurface and will require manual removal.
- A proper water circulation is a must to ensure efficacy.

Fish Farms:

We recommend only taking the ORP up to 300-400 to allow a healthy microbiome and save on product usage in such high volume projects that don't require complete disinfection. ORP testing monitors can be provided or bought as a generically available tool.

Type of **Ecabiopool**® system installation is according to pool volume, ranging from 75 m3 to as large as 238 m3. Larger pools may require combining 2 systems. The recommended ORP range for pools in Germany is 720 ORP (German bath water regulation). This range is controlled automatically (between 700-750 ORP) by the **Ecabiopool**® ORP pump. The only value that can be adjusted is the re-pumping value. Normally this value is at 600-650 ORP.

Dosing Systems



For large water bodies or sewage treatment, please reach out for an all inclusive company consultation on the project. As **ANOSAN TW**® is not chemically reactive, testing the ORP (Oxidation Reduction Potential) is a simple method of monitoring dosage efficiency.



AVAILABLE VOLUMES FOR ANOSAN TW®



COMPOSITION

water> 99 %, activated electrochemically by ECALIT process sodium chloride < 1%, sodium hypochlorite < 0.1%.

HANDLING & STORAGE

Store at room temperature in a cool, dry place. Protect from direct sunlight. Opened package should be used within 3 months of opening date.



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