

COOLING TOWERS

SANITATION AND DISINFECTION OF COOLING TOWERS

TwinOxide® is an environmentally safe liquid sanitizer, ideal for use in cooling towers and air conditioning plants.

The unique TwinOxide® patented formula is based on a two component powder concept. The two components are added to a designated amount of tapwater. After the reaction time (e.g. 1 hour at 40° Celsius, 2 hours at 25° Celsius) TwinOxide® delivers a 0,3% chlorine dioxide solution that is chlorine free, does not contain copper sulfate and that is not explosive. The shelf life of TwinOxide® ClO₂ is approximately 30-60 days (depending on storage factors) to result in a powerful broad spectrum disinfectant. The shelf life of the two powder components is almost imperishable.

TwinOxide® has a proven bactericidal, algicidal, fungicidal, sporicidal and viricidal efficacy. It is especially effective against Legionella and Salmonella Bacteria. Furthermore EPS bio films are easily removed.

- General Background

Biocides are the "elite" of chemicals used for eradication of micro organisms. When choosing a micro biocide several factors play an important role e.g. the effectiveness or based on scientific differences. Chlorine is common used as biocide. Besides chlorine also chlorine dioxide, hypochlorite, ozone, UV-light and sulfur-compounds are used for eradication of micro organisms.

- Areas of Use

TwinOxide® is well suited to disinfect water in cooling towers, air conditioning systems and process water.

- Features and Benefits

- TwinOxide® does not form any harmful or toxic by-products. It is therefore friendly to you and your environment.
- TwinOxide® remains effective through a pH range of 4 - 10, at normal temperatures, without addition of (expensive) acids. This implies that you no longer have to make tedious and costly pH and temperature adjustments to ensure your sanitizer is achieving the expected results.
- TwinOxide® eliminates obnoxious odors arising from putrefactive processes, yet leaves no residual odors of its own. The result is a more pleasant working environment.
- TwinOxide® removes possible EPS biofilms.
- The corrosive effects of TwinOxide® are compared to the corrosive effects of normal drinking water minimal.
- By a permanent dosing of 0,2mg/L TwinOxide® after the basic disinfection with TwinOxide®, all parts of the water circuit (including the difficult parts) are reached and disinfected. (dosage may be different in situations)
- The usage of TwinOxide® has negligible effects on the environment.
- TwinOxide® added to the water circuit, reacts excellent with all smell causing elements and absorbs them out of the water.

DIRECTIONS FOR USE IN COOLING TOWERS

- Dosage Requirements

The required dosages will vary with water conditions and the degree of contamination present.

- Initial Dosage

For initial treatment (or when control has been lost) add TwinOxide® at the rate of 10 L for every 1000L of water in the system.

The TwinOxide® concentration should be measured regularly for the first ten days to ensure the concentration is maintained at a level of 0,4 – 0,8 mg/L. If the concentration decreases below this level, then add TwinOxide® as required.

- Maintenance Dosage

Once control has been achieved, TwinOxide® can be added as required to maintain a level of 0,2 – 0,4 mg/L of TwinOxide®.

TWINOXIDE® CHLORINE DIOXIDE

- Analysis

Residual TwinOxide® chlorine dioxide concentrations must be determined by substantiated methods which are specific for chlorine dioxide. Two suitable methods are published in *Standard Methods for the Examination of Water and Wastewater*:
4500- ClO₂ D DPD-Glycine Method
4500- ClO₂ E Amperometric Method II

- Packaging Sizes

Available in packaging providing 100L and 1000L of TwinOxide® 0,3% ClO₂ Solution. If higher volumes are required Bulk containers can also be arranged upon request.

- Contact

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