

Kemira DesinFix™ | Disinfection for your environment

Kemira





Just add Kemira | Clean water is a global necessity. Kemira is committed to developing efficient and innovative technologies for the purification of wastewater. Disinfection enables compliance with legislation covering bacteria levels in effluents being discharged. However, different means of disinfection vary in terms of price, environmental impact, energy consumption and installation cost. Kemira is proud to introduce DesinFix™ – a state-of-the-art disinfection technology meeting your needs, and those of the environment.

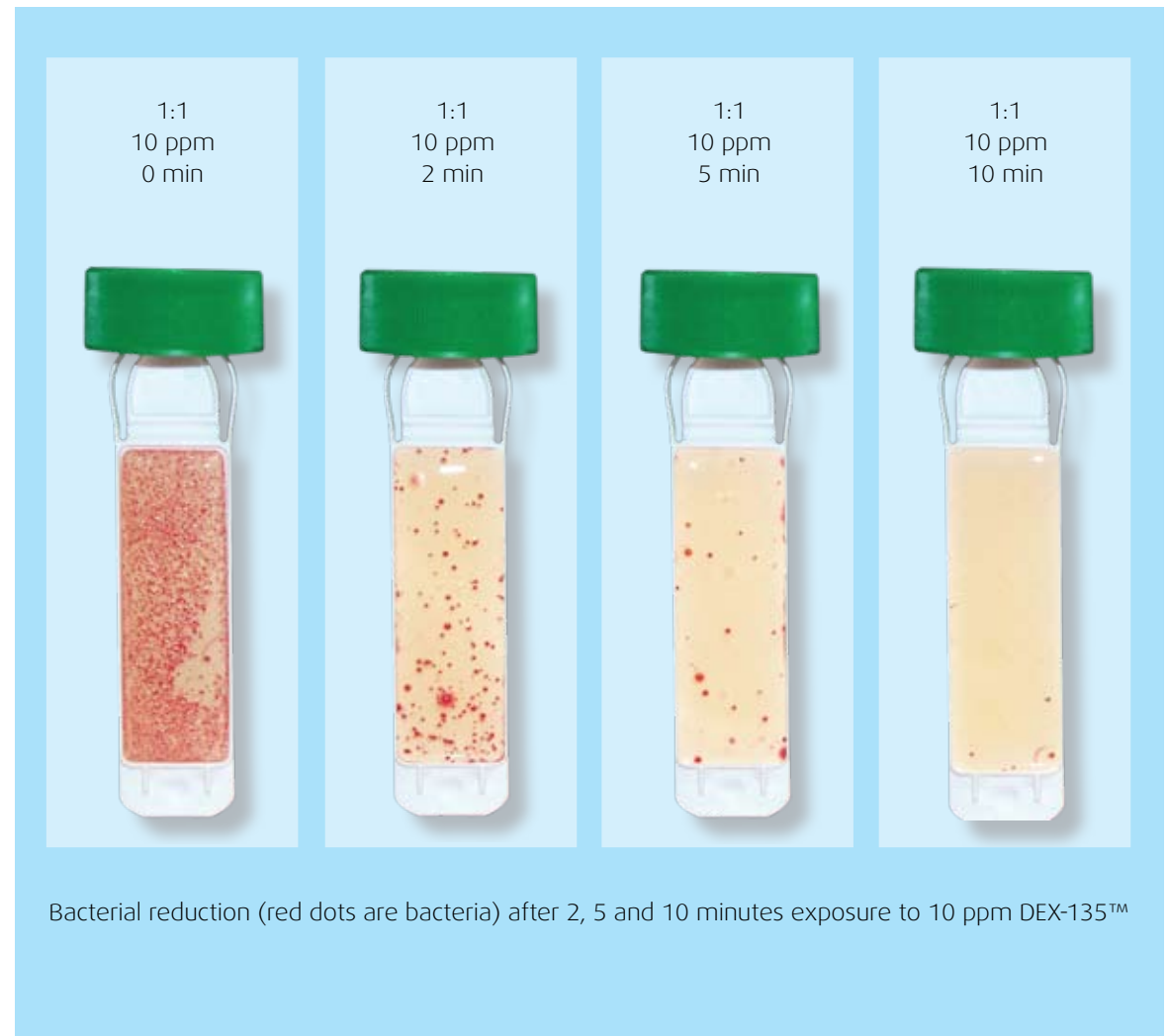
DesinFix™ - disinfection without toxic by-products

The next generation biocide

DesinFix™ is a complete disinfection technology including chemicals, equipment and related services. DesinFix™ is based on a mixture of formic acid and hydrogen peroxide, which when accurately mixed forms a highly efficient biocide, DEX-135™. The technology is developed by Kemira – for your environment.

Performic acid - fast acting with no residual effects

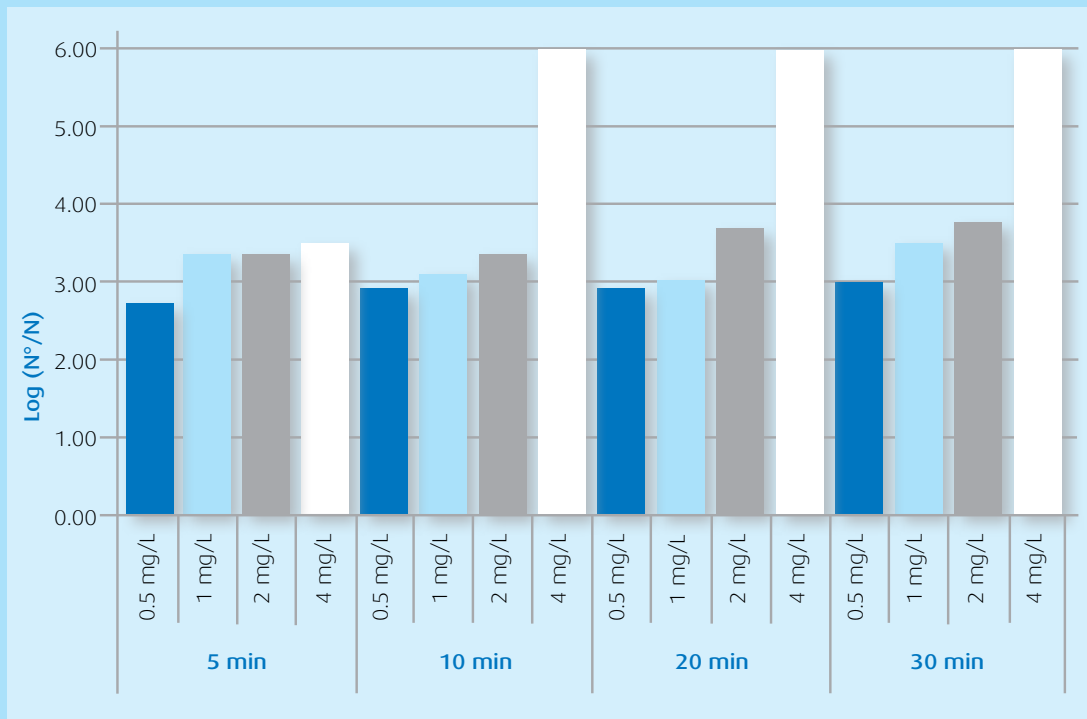
DEX-135™ contains a highly efficient and reactive compound, known as performic acid. Performic acid decomposes to form hydroxyl radicals that kill the bacteria. After 10 minutes the water is disinfected and within an hour after dosing, the active substance can no longer be detected. DEX-135™ breaks down into carbon dioxide and water. No toxic disinfection by-products can be detected.



High efficiency disinfection at a competitive cost

The ultimate technology

DesinFix™ is the ultimate technology for wastewater disinfection. Measurements have shown that it is possible to achieve a 6 log (99.9999%) kill ratio using the DesinFix™ solution. For disinfection of effluent discharge sewage water, a dose of 10 ppm DEX-135™ is usually more than sufficient to give a low count of coliforms. As an example, a sewage works treating 15 000 m³/day would need only 125 liters of DEX-135™ per day for disinfection.



Reduction of fecal coliforms at different times and concentrations using DEX-135

Conversion to ppm of DEX-135 added to wastewater

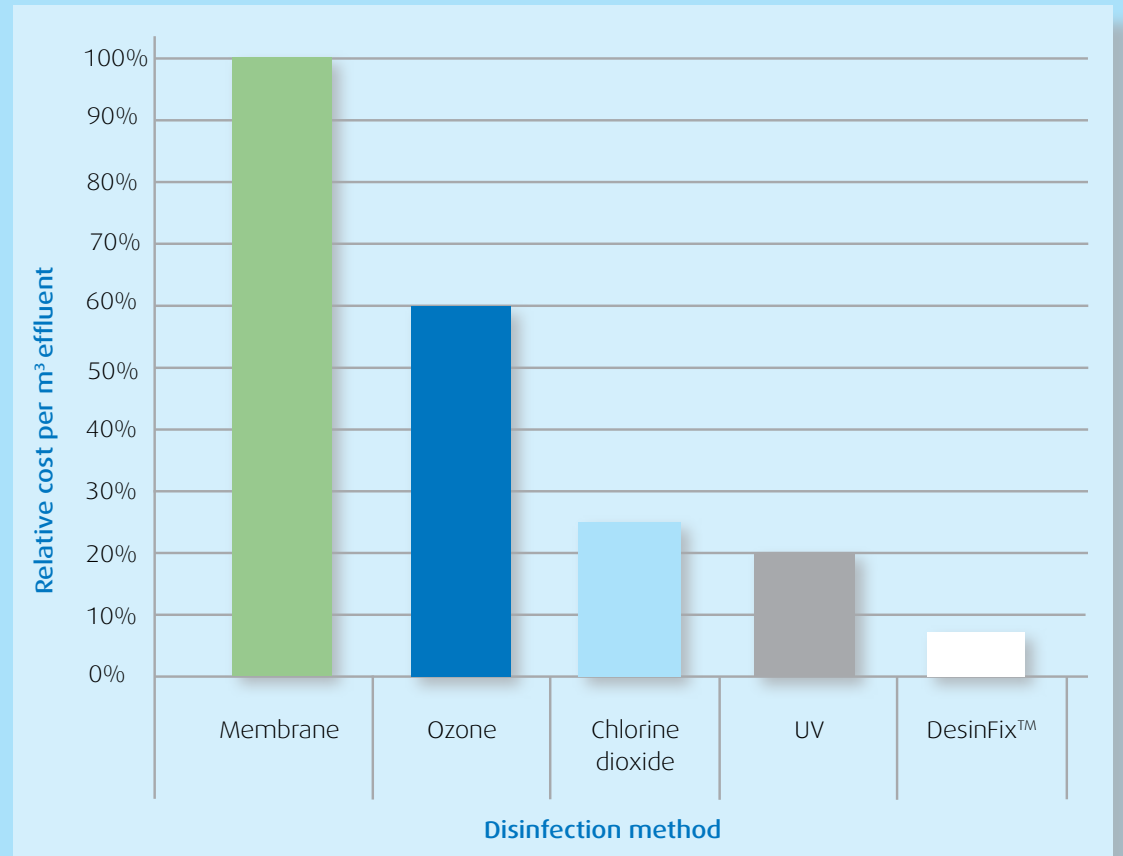
0,5 mg/l =3,7 ppm; 1=7,4; 2=14,8; 4=29,6

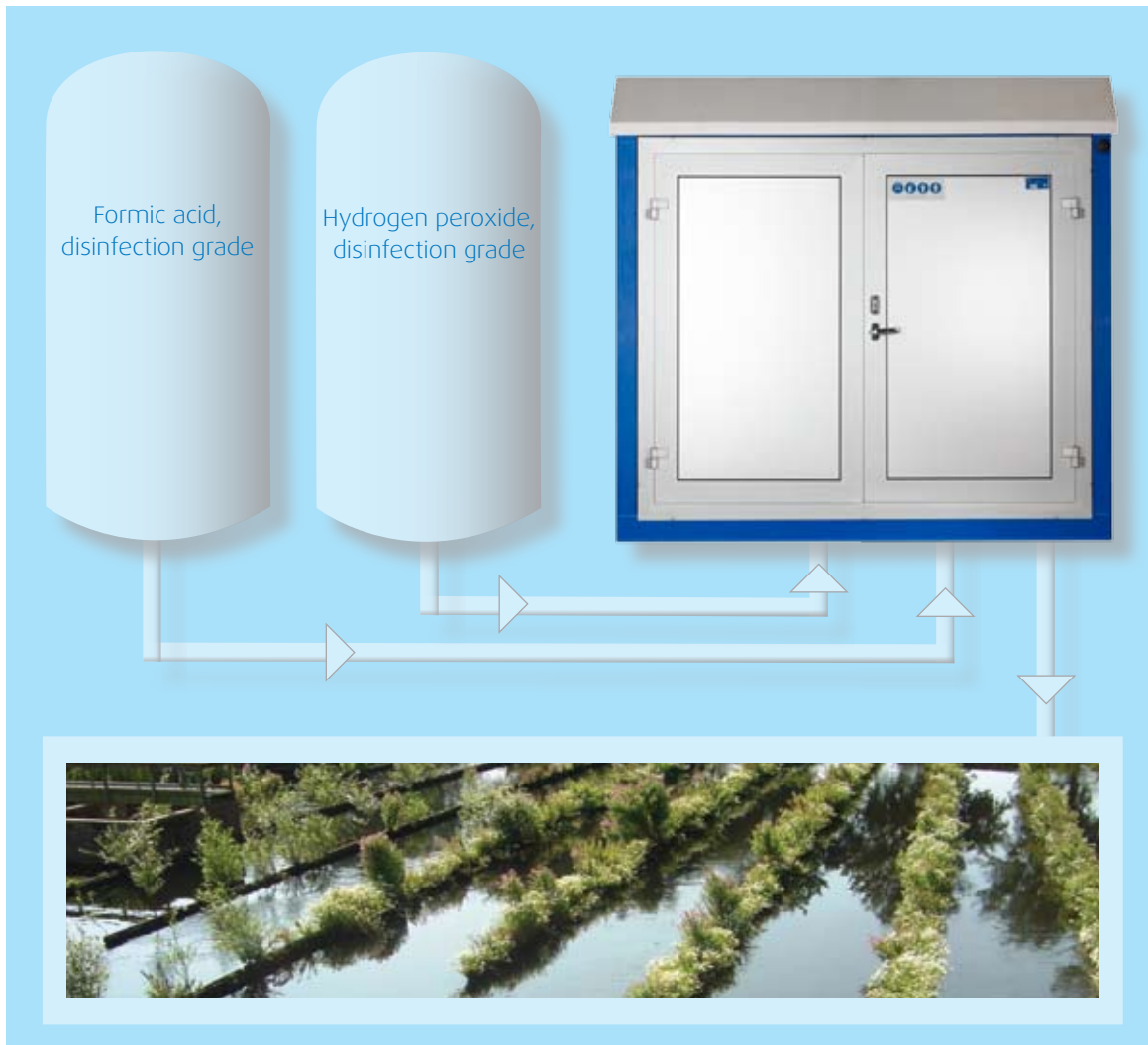
Cost efficient

When it comes to costs, Kemira DesinFix™ has a distinct advantage. With low energy consumption, competitive operational costs, minimal maintenance requirements, and a much lower investment cost compared to UV-light or ozone disinfection, it is no surprise that we can make the following statement:

We offer to supply a complete, chlorine-free disinfection system at a total cost well below other alternative chlorine-free methods!

Relative total cost





A reliable technology with minimum space requirement

Guaranteed disinfection

Kemira's DesinFix™ system is designed to handle rapidly varying flow rates, and to continue operating during power outages (<2-3 hours). Thus, DesinFix™ provides a guarantee of disinfecting the water effluent, even in difficult conditions that can shut down conventional systems.

The mixing unit

The mixing unit contains a built-in reaction vessel, dosing pumps, the process control box and a safety flush system. Everything is neatly fitted into an easily accessible cabinet, providing safe and secure operation and measuring only 2x2x1 meters.

Forget about complicated start-up and time-consuming maintenance

Easy installation with on-site chemical production

The disinfectant DEX-135™ cannot be stored or transported and is therefore produced on-site in a standardized Kemira mixing unit. A typical installation consists of two storage tanks for the chemicals, two transfer pumps and the mixing unit. The mixing unit is fully automated with minimal maintenance requirements.

Full service

Purchase of the Kemira DesinFix Technology includes all the required chemicals, the equipment necessary to feed those chemicals, and the handling of all installation and commissioning services. This is, of course, backed up by maintenance and technical support, and to ensure efficient and safe operation, we also provide full operator training. Contact your Kemira representative and we will consult with you to evaluate your specific situation and its potential for using DesinFix™.





Kemira in brief

Kemira will be a focused company, the best in water and fiber management chemistry.
In 2007, Kemira recorded revenues of approximately EUR 2.8 billion and had a staff of 10,000.
Kemira operates in 40 countries.

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