



Clorius2

WATER TREATMENT EUROPE

BRENTAG 



CHLORINE DIOXIDE AT YOUR CONVENIENCE

CLORIOUS2 UNLOCKS THE POWER AND VERSATILITY OF CHLORINE DIOXIDE.

By making chlorine dioxide available in a transportable, ready-to-use form, Brenntag is able to cover a wide range of industries and aid the development of new applications that require disinfection and oxidation solutions. Clorious2 overcomes the limitations and drawbacks associated with conventional chlorine dioxide generation techniques, enabling a wider public to benefit from chlorine dioxide chemistry.

Because of its unique properties and benefits, chlorine dioxide is the disinfectant of choice for the 21st century. Current chlorine dioxide production methods entail the use of generators.

The required capital investment and safety concerns have been prohibitive to the full scale usage of chlorine dioxide, especially in smaller applications.

Many users want to reap the benefits of chlorine dioxide in their process without purchasing a generator or manual mixing of chemicals.

CLORIOUS2 IN BRIEF

- Transportable, ready-to-use chlorine dioxide solution
- No on-site chemical mixing, no generator, no activation period
- Highly concentrated, pure chlorine dioxide in solution
- Long-term stability
- Safe to use
- Easy to apply with chemical dosing pump
- Patented technology
- Produced, distributed and marketed by Brenntag

CLORIOUS2



INDUSTRIES AND APPLICATIONS

AGRIFOOD

Agriculture

- Fruit and vegetable rinses
- Fungicide in post-harvest decay management programs
- Irrigation

Animal husbandry

- Air scrubbers
- Disinfection of livestock drinking water, e.g. poultry, pig and dairy farms
- Underbelly wash for dairy cows
- Biosecurity in hatcheries

Horticulture

- Elimination of biofilm from irrigation lines and holding tanks
- Elimination of drip emitter clogging
- Algae control
- Treatment of irrigation water for disease control
- Treatment of captured run-off water for re-use

Meat processing industry

- Process and chilling water disinfection
- Cleaning in place agent (CIP)
- Air scrubbers and cooling towers

Fish processing industry

- Ice and process water disinfection
- Cleaning in place agent (CIP)
- Air scrubbers and cooling towers

CLORIOUS2

CLORIOUS2 AND BIOFILM REMOVAL

Biofilm contamination and fouling occur in nearly every industrial water-based process, including water treatment and distribution, food processing, pulp and paper manufacturing and the operation of cooling towers. Biofouling, biocorrosion, equipment damage and product contamination are consistent and expensive problems in the industry which potentially result in huge economic losses. Chlorine dioxide is considered the best available technology for biofilm removal and its continual management. With Clorious2, Brenntag offers an easy and safe solution that stops our customers from ever having to worry about biofilm in their processes completely.

Dairy industry

- Process and chilling water disinfection
- Cleaning in place agent (CIP)
- Sanitiser for processing equipment

Food plants

- Microbial control of food plant process water, such as flume water, retort water, chill water systems, and hydrocoolers
- Cleaning in place agent (CIP)
- Food contact sanitiser for all processing equipment surfaces, transfer lines, tanks, conveyors, blenders, etc.
- Non-food contact sanitiser to treat recirculating water for packaging, cooling ice loops, pasteurisers, floors, walls, etc.
- Membrane cleaning and disinfection

Industrial process and effluent water

- Microbial control of process water, e.g. injection moulding
- Process hygiene, e.g. in paper mills
- Phenol destruction, e.g. in pharmaceutical plants
- Oxidation of H₂S, mercaptans and amines, e.g. in the leather industry

INSTITUTIONAL

Hotels

- Legionella control in hot and cold water distribution systems
- Air conditioning
- Pool filter disinfection

Hospitals

- Legionella control in hot and cold water systems
- Surface disinfection



Breweries, wineries and beverage industry

- Potable water treatment
- Bottle rinsing
- RO and softener disinfection
- Pasteurisers, bottle and can warmers, coolers
- Filler head assemblies
- Cleaning in place agent (CIP)

INDUSTRIAL

Cooling towers

- Biofilm removal in fills and heat exchangers
- Algae control
- Legionella control

MUNICIPAL

Drinking water treatment

- Disinfection in water works and downstream
- Taste and odour control
- THM control
- Iron and manganese oxidation
- Sand filter disinfection
- Nitrification control

Wastewater treatment and sewers

- Odour control (H₂S)
- Tertiary effluent treatment
- Sludge sanitation
- Treatment of polymer make-up water
- Air scrubbers

CLORIOUS2 PRODUCT LINE

CLORIOUS2 COMES IN VARIOUS PRODUCTS AND GRADES, AIMED AT FULFILLING THE DISINFECTION AND OXIDATION NEEDS IN SPECIFIC APPLICATIONS.

CLORIOUS2 AIR

As a selective oxidising agent, Clorious2 Air can be used to control odour in sewer systems, process water and air scrubbers. Through the oxidation of sulfur compounds, Clorious2 Air is effective for permanent H₂S reduction in the water and gas phase, as it reacts significantly faster and more completely with sulfur compounds than traditional oxidising agents.

CLORIOUS2



CLORIOUS2 GUARD

A powerful disinfectant, oxidising agent and slimecidic ready to tackle your biggest challenges in industrial cooling and process water treatment. Clorious2 Guard is ideally suited to control and remove biofilm in open and closed cycle cooling systems and re-cooling units, air washers and evaporative condensers. It prevents the regrowth of biofilm thereby depriving microorganisms (legionella in particular) and algae of their nutrient media.

CLORIOUS2 FRESH

Green disinfectant and cleaning in place (CIP) for excellent microbial control in food and beverage processing, packaging and filling operations. Effectively removes biofilm from water distribution systems, transfer lines, tanks, conveyors, blenders, etc. Clorious2 Fresh is the best choice for the highest standards of hygiene and safety, without corrosion to your processing equipment.

CLORIOUS2 CARE

Fast acting disinfectant and oxidising agent for the treatment of water intended for human and animal consumption. Ideal for small water works, booster disinfection or THM control. Also suitable for food contact process, flume and rinse water or legionella control in hotels, hospitals and other buildings. Because of Clorious2 Care's high purity, the compliance of chlorite and chlorate will not be compromised.

CLORIOUS2 CLEAN

Versatile chlorine dioxide solution for a wide variety of general disinfection applications. Clorious2 Clean can also be used for the treatment of municipal or industrial wastewater to ensure compliance with effluent discharge regulations or in cases where the effluent is reclaimed for re-use applications in e.g. irrigation or agriculture.

CLORIOUS2 PRODUCTS

The Clorious2 products come in returnable, ADR approved drums of 30 kg and 196 kg and can be safely dispensed using a dedicated withdrawal system.

ABOUT BRENNTAG WATER TREATMENT

WATER IS LIFE – THAT'S WHY WE CARE

Brenntag Water Treatment is a leading European sales and marketing channel offering the broadest product range together with pro-active, customer oriented expertise. Treating water can involve complex and critical decisions. Brenntag Water Treatment provides the highest quality chemicals and services and is committed to meeting customers' varying challenges and simplifying the product and packaging mix. Brenntag Water Treatment employs specialists in each geographic region who are experts in the skills required to ensure safe water. These experts work with

customers, suppliers and regulatory and legislative authorities to ensure timely exchanges of necessary information. One of Brenntag Water Treatment's key values is open and transparent collaboration with customers and suppliers. Experienced and dedicated water treatment experts apply knowledge from Brenntag's worldwide relationships to meet local customer needs. Brenntag Water Treatment provides dedicated logistics solutions for the particular needs of water treatment customers, assuring traceability, quality and regulatory compliance.

WATER TREATMENT EUROPE



BRENNTAG HOLDING GMBH

Water Treatment Europe

Stinnes-Platz 1

45472 Mülheim an der Ruhr

Germany

Phone: +49 208 7828-0

Fax: +49 208 7828-69

clorious2@brenntag.de

www.clorious2.de

