WL-SANIFast

Bactericide, biocide, virucidal for domestic use

DESCRIPTION:
Advanced quick-acting for the disinfection and stabilization of water for domestic use. Broad bactericide, biocide, virucidal spectrum. Thanks to the chlorine dioxide-based active biocide substance- which is much more effective than traditional disinfectants – it is powerful against Legionella pneumophila and different infective agents. Effective against microorganisms, ideal for collection water of tanks and reservoirs. Product compliant with Regulation UNI-EN 12671 concerning drinking water and approved according to BS EN 1276.

CHLORINE DIOXIDE PROPERTIES:
Chlorine dioxide shall NOT be mistaken with Chlorine or Hypochlorite or traditional chlorine-based disinfection systems. In fact, unlike the latter, this product does not release any odour, it has a very high residual activity and above all it is does not act by colour changes but by oxidation penetrating the bacterial cell wall and eliminating pathogenic organism. It is much faster (a few dozen times) than traditional methods (i.e. chlorine, glutaraldehyde or quaternary salts). It is stable over a wide pH range (up to pH 12). Due to these properties, it is intended for the treatment of surface water for human feeding. It is in fact used on an industrial scale for the treatment of aquifer water, surface water, for the removal contaminants due to the presence of Iron and Manganese, in the breeding industry, in hospital, out-patient, school an industrial structures thus representing an excellent disinfection and prevention solution. WL-SANIFast destroys biofilms in tanks, pipes and from surfaces in contact with water removing water removing pathogenic agents which grow and reproduce allowing Legionella Pneumophila to spread in hot water systems and in cooling towers. It eliminates sulphate reducing bacteria and aerobic and anaerobic bacteria in biological slime (bioslime). Its action dramatically reduces metal corrosion phenomena thus contributing to enhance circulation and performance of heat exchangers.

MAIN FIELDS OF USE:

Potable water:
- Disinfection
- Control of THMs Trialomethanes
- Oxidation of Iron and Manganese
- Improvement of sludge settling
- Reduction of turbidity and color
- Oxidation of organic pollutants (pesticides, phenols, etc.)
- Removal of algae and elimination of unpleasant odors.

Industrial systems and waste water:
- Cooling circuits, evaporative towers, etc.
- Paper industry, waste water and feeding, cellulose bleaching, odor control
- Oxidation of organic pollutants (surfactants, phenols, sulfides, cyanides, nitrites, hydrocarbons, etc.).

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Oil installations:

- Control of odors and injection water
- Control of sulfate-reducing bacteria
- Control of microbiological sludge
- Oxidation of hydrogen sulphide.

Food production:

- Disinfection of washing water, primary and process for industrial uses
- Disinfection of cooling and drainage water
- Disinfection of containers
- Reverse osmosis.

Reverse Osmosis: Applications of chlorine dioxide (ClO2) in desalinators, potalizers, etc.

Advances in osmotic membrane technology push research to improve cleaning and disinfection methods. The deposit of substances (encrustations and organic substances in the form of biofilms) leads to a reduction in efficiency and an increase in energy consumption. The different populations of bacterial species (organic substances) can proliferate in the conditions in which water is found in membrane systems. Large surfaces are available and microorganisms cling and proliferate on them. These highly adaptable life forms draw their nutrition from running water and protect themselves from damage by producing extra cellular materials; in fact, some are defined by microbiologists as "silt producers". This sticky biofilm must be removed from the surfaces of the reverse osmosis membrane through cleaning and disinfection processes. The choices of a biocide or a disinfecting agent are often restricted by the need to produce drinking water, which generally means: chlorine, peroxides and chlorine dioxide. Recent basic results have shown that chlorine dioxide can be very effectively used to disinfect reverse osmosis membranes without causing damage to them or to the quality of the water produced. The key to this success lies in the production method of chlorine dioxide and in the constant stability of concentration at very low levels.
Below we present a summary of the properties of ClO2 chlorine dioxide which suggest its use for membrane systems:
- Effective at concentrations <1.0 ppm (mg / l).
- Capable of penetrating biofilms and attacking organisms living on surfaces.
- Capable of permeating through the membrane and disinfecting the support structure of the filters.
- Delays the re-flowering of the biofilms favoring a longer life span of the plant.
- Maintains the flow requiring the least amount of energy.
- It can minimize, if not eliminate, the need for certain pre-filters that are themselves sources for the re-injection of running water before the reverse osmosis membranes.

REPORT ON THE ANTIMICROBIAL EFFICACY OF CHLORINE DIOXIDE
(recommended times for an efficacy min 99.99%)

Main microorganisms	Ppm concentration (parts per million) or mg/lt	Time of contact
Aspergillus fumigatus	200	60 seconds
Bacillus cereus (spores)	200	5 minutes
Escherichia coli	100	30 seconds
Legionella pneumophila	25	60 seconds
Pseudomonas aeruginosa	500	10 minutes
Candida albicans	100	60 seconds
Salmonella Tiphimurium	100	60 seconds
Streptococco faccium	100	60 seconds
Staphylococcus aureus	93	60 seconds
Salmonella choleraesius	500	10 minutes
Canine parvovirus	500	10 minutes
Proteus vulgaris	100	60 seconds

N.B. : Chlorine dioxide is internationally recognized as a water purifying agent and therefore able to neutralize the Vibrio Cholerae (cholera). The concentrations of use vary depending on the type of disinfection to be carried out and on the degree of contamination of the water.

INSTRUCTIONS FOR USE: - LIQUID PRODUCT -
Product A+B (liquid). The product may also be measured out partially provided that doses of products A and B are the same.
Doses: 1 lt of part A + 1 lt of part B (premixed in about 10 liters of water) produce 2,000 liters of water at 0.5 ppm of free chlorine dioxide (legal limits). Higher dosages are preferable depending on the bacterial load present. Before using water, check the amount of free chlorine dioxide in ppm (parts per million) with the colorimetric KIT or the appropriate strips supplied, which must be 0.2 - 0.4 ppm for complete disinfection. **and MUST NOT EXCEED 0.5 ppm of residual ClO2.**

COMPATIBILITY WITH MATERIALS:
The stabilized solutions of Chlorine Dioxide with concentrations from 1% to 20% can be stored or stored for a long time at room temperature (12 - 18 ° C) in systems built with the following materials:

CONTAINERS AND TANKS:
Titanium
6-Mo Steel
Phenolic Resins
Glass fiber (vinylester resins with UV protection)
PTFE Nylon Hypalon – PVC – HDPE

PUMPS AND PIPES:
13 Cr steel - 22 Cr Steel
316 L stainless steel
Hastelloy alloys
Fluorosilicone
PVC – HDPE

ELASTOMERS:
Viton
Fluorosilicone
FEP
Kalrez

WORK SURFACES AND WORKTOPS:
316 L stainless steel
Phenolic Resins
Nylon
PVC - HDPE – PTFE

INCOMPATIBLES MATERIALS:
Transparent glass
PET - thin-walled LDPE
Carbon steel - 304 Stainless Steel
Aluminum - Copper alloys
Natural rubber - nitrile - neoprene - EPDM - polyurethane
Concentrations below 100 ppm (such as ClO2) are compatible with most materials commonly used in plants. In any case, aluminum and copper alloys are not recommended.

Important Note: Material compatibility information reflects current knowledge and may vary based on certain parameters such as design temperature and manufacturing characteristics. They can be considered valid in a temperature range from 5 ° C to 60 ° C. **Do not allow SANIFast solutions to evaporate or dry out.**

PACKAGES:
Product A (concentration 1.000 ppm), bottle with 250 ml and tanks with 20 lt.
Product B (Activator x Product A), bottle with 250 ml and tanks with 20 lt.

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