

V-GEN™ 511

Chlorine Dioxide Precursor

Product Description

V-GEN 511 chlorine dioxide precursor is a chlorite-based reagent specifically designed and only to be used in conjunction with V-GEN HPLUS in one of Visentia's chlorine dioxide generators in order to safely generate chlorine dioxide. Chlorine dioxide can be used as a biocide or as a chemical oxidant and is recommended in a number of applications:

- Sterilisation of wash water in food processing plants as an alternative to chlorine or peracetic acid (PAA).
- In contaminated cooling towers where traditional oxidising biocides have very high product demand resulting in poor biofilm control or unacceptable AOX levels.
- As a chlorine alternative in once-through cooling systems to control micro and macro fouling.
- As a chemical oxidant to reduce/remove contaminants such as sulphides, mercaptans, phenols, tertiary amines, etc.
- As an odour control agent.

Product Benefits

Chlorine dioxide produced from V-GEN 511 has the following benefits:

- Less reactive with organic materials than traditional halogens like chlorine and bromine, therefore, can be more cost effective in heavily fouled systems.
- No halogen odour from treated water.
- Environmentally friendly: will not result in chlorinated by-products such as trihalomethane (THM) or absorbable organic halogens (AOXs), as is the case with chlorine and bromine treatments.
- Very effective at penetrating biofilms and dislodging deposits.

Product Application

V-GEN 511 should be used only in conjunction with V-GEN HPLUS and only in one of Visentia's generators. In order to select the appropriate Visentia generator, a chlorine dioxide demand study should be performed. Depending on the application chlorine dioxide should be fed continuously or intermittently. In certain applications

chlorine dioxide can be fed at sub-demand levels. Ask for more details with your Visentia water treatment consultant.

Physical Properties

Form:	Liquid
Odour:	Bleach-like odour
Colour:	Clear
pH (25°C):	11.0
Melting/Freezing Point:	NA
Boiling Point:	100°C
Solubility (water, 25°C)	Miscible
Flammability:	NA
Relative Density:	>1.0
Viscosity:	NA

Regulatory & Handling

MPI Dairy: V-GEN 511 is recognised by the Ministry of Primary Industries New Zealand as a Dairy Maintenance Compound; approved for treatment of potable and process water in dairy factories when used in accordance with recommended operating conditions/guidelines.

MPI Non-Dairy: V-GEN 511 is approved by the Ministry of Primary Industries New Zealand as a Non-Dairy Maintenance Compound for treatment of potable and process water in food and beverage processing plants when used in accordance with recommended operating conditions/guidelines (C 61).

FDA: Under US Food and Drug Administration regulations, chlorine dioxide (CAS Reg. No. 10049-04-4) may be safely used in food for human consumption (21CFR 173.300). A sanitizing solution that may be safely used on food-processing equipment and utensils and on other food-contact articles (21CFR178.1010).

EPA: US Environmental Protection Agency's Office of Drinking Water approves the use of chlorine dioxide for disinfection.

Refer to the SDS or contact your Visentia water treatment consultant for any additional regulatory and environmental information.



Safety: Visentia maintains an SDS for all its products. Use the health and safety information contained in the SDS to develop appropriate product handling procedures to protect your employees and customers. Our SDS should be read and understood by all of your supervisory personnel and employees before using Visentia products in your facilities.

Packaging

V-GEN 511 chlorine dioxide precursor is available in 20L pails, 200L drums and 1,000L IBCs.

Further Information

If you require any further details on Visentia's products or services, please call your local Visentia water treatment consultant or directly to our Auckland head office on +64 9 216 9824.