

# ALPHASAN®

## BROAD-SPECTRUM FOOD-GRADE BIOCIDES BREWING, BOTTLING & CANNING



Brewers and beverage processors have a constant battle with maintaining food safety and access to clean potable water is vital for successful operations. Harmful pathogens and biological contaminants can build up on surfaces and equipment, as well as in water facilities, leading to poor water quality and associated food hygiene problems which can cause foodborne diseases, resulting in product recalls and potentially devastating public health risks.

**ALPHASAN** is Chlorine Dioxide ( $\text{ClO}_2$ ) gas in an aqueous solution. This solution is an exceptionally powerful broad-spectrum oxidising agent which is universally recognised as one of the most effective, safest and environmentally harmless biocides available. It has proven to be effective at low concentrations and is used for a wide range of applications where effective control of microbial activity is essential, without tainting or forming disinfection by-products. Perfect for multiple applications in the food and beverage industry.

- **CLEAN-IN-PLACE (CIP) CLEANER/DISINFECTANT** - Rapidly disinfect tanks, beverage lines, surfaces & equipment to eliminate harmful pathogens, biological contaminants & beer spoilage organisms, including moulds, yeasts & bacteria.
- **POTABLE WATER DISINFECTION** – Sustainably improve the microbial quality of your incoming water, as well as disinfecting entire water facilities & controlling biofilms.
- **BOTTLE & CAN WASHING** – Disinfect & sterilise bottles & caps without tainting or leaving any harmful disinfection by-products or residues.

**ALPHASAN® - POWERFUL & NON-TAINING** - The superior performance coupled with its safety and environmental benefits makes it the ultimate solution for optimising food safety and quality, as well as ultimately protecting public health and increasing consumer satisfaction.

## BEVERAGE SAFETY & QUALITY

# **FEATURES & BENEFITS**

**ALPHASAN** - A broad-spectrum high-level bactericide, sporicide, virucide, fungicide and algaecide that has several important advantages over standard sanitisers and traditional high-risk chemicals such as chlorine, peracetic acid and sodium hypochlorite.

**ALPHASAN** is an especially effective disinfectant because it is impossible for bacteria and viruses to develop a resistance to it. ClO<sub>2</sub> has proven to be consistently reliable against, but not limited to, the following pathogens:

Campylobacter	Coronavirus
Clostridium	Cyclospora
Enterobacter	Giardia
E. coli	Hepatitis A & B
Lactobacillus sp.	Herpes (Virus I & II)
Legionella	Norovirus
Listeria	Parvovirus
Pseudomonas Aeruginosa	Pediococcus sp.
Salmonella	Rotavirus
Staphylococcus	Streptococcus

**HIGH PERFORMANCE** – Exhibits rapid and consistent kill of pathogenic microorganisms. The product is 2.6 times more powerful than chlorine and has proven to be consistently reliable and effective at low concentrations and short contact times, eradicating bacteria, spores, viruses, protozoa, algae, fungus and yeasts at up to 99.9999% (6-log reduction).

**SAFE TO USE** - Non-toxic, non-carcinogenic and non-flammable. ERMA (HSNO) have also determined it as non-hazardous to handle and/or transport. Does not chlorinate or form any harmful disinfection by-products (DBP's) such as AOX's, HAA's or THM's.

**ECONOMICAL** – Its efficacy at low concentrations makes it very economical in use, with low capital & operating costs. Significantly reduces water use. Being a ready-to-dilute single pack solution it is also easy to handle & monitor. It costs about the same to use as other sanitizers but is more versatile and has far less of an impact on the environment.

**ECO FRIENDLY** – Chlorine Dioxide is environmentally harmless and is biodegradable. It degrades to common salt (NaCl) and does not form any chemical residues.

**NON-TAINTING** - Does not affect the taste, smell or colour of food or beverages. It can be applied to surfaces in close proximity to beer production and will not cause off-flavours. It also does not have the strong odour or corrosive issues associated with chlorine or peracetic acid. Does not chlorinate or form any harmful disinfection by-products (DBP's) such as AOX's, HAA's or THM's.

**APPROVALS:** FSANZ (Food Standards Australia & New Zealand) C43, C61 & C102 / DWSNZ (New Zealand Drinking-water Standards) / MPI

# TYPICAL APPLICATIONS

**ALPHASAN** - Used wherever the highest standards of disinfection and control of microbial activity are required.

Chlorine dioxide has effectively been applied in many brewery and bottling operations around the globe for sterilising fermenting and brewing equipment, and has proven to be consistently effective against a variety of beer spoilage organisms, such as moulds, wild yeast and bacteria, including *Lactobacillus* sp. and *Pediococcus* sp., as well as other microbial pathogens such as *Listeria*, *E. coli* and *Salmonella*.  $\text{ClO}_2$  is effective at low concentrations and will not flavour beer or form any harmful residues or disinfection by-products.

Spore-forming organisms are notorious for becoming progressively immune to sanitizers (especially chlorine bleach) when used continuously for weeks and months at low ppm levels. By using  $\text{ClO}_2$ , the brewer can prevent these organisms from gaining a foothold in the brewery and maximize the shelf-life of their beers.

Brewers frequently struggle with the best way to ensure microbial free equipment, and expensive and potentially harmful chemicals such as peracetic acid, iodophor, sodium hypochlorite and hydrogen peroxide are often used in high concentrations for disinfection purposes, even though they are known to leave residues after use which inevitably have adverse effects on taste and product quality.

By using  $\text{ClO}_2$ , both the application concentration and application temperature can be considerably reduced, resulting in significantly lower operating costs, as well as significant safety and environmental benefits. Between 1-5mg/l of  $\text{ClO}_2$  can perform the same sanitising function as 50mg/l of peracetic acid, leaving surfaces disinfected and food safe.

**ALPHASAN** is easily implemented into new or existing sanitising/hygiene arrangements and systems via automatic dosing.

## ALPHASAN®

Approved by FSANZ for post-clean sterilisation, sanitisation and disinfection.

- **CLEAN-IN-PLACE (CIP) SANITISER** – Disinfect tanks and pipelines in fermenting and brewing equipment, and control biofilms in beverage pipelines. This will assist to significantly improve the shelf-life of beer.
- **POST-RINSE STERLISER** - Approved by FSANZ for post-clean sterilisation, sanitisation and disinfection.
- **BOTTLE WASHING STERLISER** - Spray onto crowns and into empty bottles to eliminate microorganism contamination prior to reaching the filler. Does not taint and will not cause off-odours or leave any residues.
- **WATER TREATMENT & DISINFECTION** – Improve the microbial quality of your incoming water. Provides long-term residual disinfection.
- **WATER FACILITIES DISINFECTION** – Control microbial activity in water systems to eliminate biological contaminants, as well as controlling taste and odour problems. Effectively eradicates & prevents problematic biofilms in water pipes, ice-makers, as well as in beverage pipelines.
- **ODOUR NEUTRALISER** – One of the most powerful odour removal solutions available. Eliminate foul odours by controlling odour-causing bacteria & mould.

# ALPHASAN®

Our technological advances have made it possible for us to produce a consistent 1000ppm aqueous solution of ClO<sub>2</sub> which has a minimum 6-month shelf-life and is sold in various container sizes. With our experienced Chemists we are ready to assist you in every aspect of the evaluation, design, implementation and long-term support of your Chlorine Dioxide requirements.

**ALPHASAN®** is a registered disinfectant, manufactured and marketed in New Zealand by:

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As the actual conditions of use and storage are out of our control, no liability is accepted for any loss or damage caused directly or indirectly through the use of our products. Intending users should satisfy themselves as to the suitability of this product for any particular purpose, by carrying out appropriate tests. For more information, usage instructions and health & safety directions please refer to our website.

USE DISINFECTANTS SAFELY. ALWAYS READ THE LABEL AND SDS BEFORE USE. ALPHASAN® IS A REGISTERED TRADEMARK. ALL RIGHTS RESERVED.