

Ozone as a Ciderly Disinfection Tool

How this safe, organic solution is used with today's cideries

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s the cider industry continues to grow, cider professionals know that microbiological quality control, and cidery disinfection methods are critical for the processing and production of cider.

While some cider-makers use chemicals, steam, or hot water for disinfecting equipment, many are turning to ozone technology as an effective alternative and organic disinfectant.

Ozone is the most powerful oxidizer and disinfectant that can safely be used and is commercially available for the control of bacteria, molds, and other microbes. Ozone provides this disinfection through a lysing process, which breaks down the microbe's membrane and cell wall, destroying it completely, and very quickly. It is far more efficient in disinfection than hot water, caustic chemicals, or acids. Further, ozone is generated on-site reducing the need for handling and storage of such chemicals.



CIP20



C-Series Mobile Disinfection Cart



OZONE MOLECULE

Ozone (O₃) is Mother Nature's perfect purifier and is formed naturally within the ozone layer. It is generated when oxygen (O₂) is exposed to UV light or an electrical charge (lightning).

Ozone is that fresh, clean scent that can be smelled after a lightning storm. As the oxygen passes through the electrical field, the O₂ molecule splits and forms two O₁ atoms. Each unstable O₁ atom combines with an oxygen (O₂) molecule to form O₃.

Since the FDA's approval of ozone as an anti-microbial agent in 2001, ozone sanitation systems have been widely accepted as an effective means to improve food safety and quality.

Advertorial

by Marc DeBrum
ClearWater Tech, LLC

Cider Production Facility



Ozone is an excellent addition to disinfection protocol to assure microbe free surfaces of processing equipment such as fruit washing mills, kegs, carboys, conveyors, presses, bottle rinse, barrels, fermentation tanks (inside and out), transfer lines, hoses, fittings, valves, and clamps.

Other places that disinfection can go forgotten in the cidery are floors, walls, and drains. Left untouched these places can attract fruit flies and other pests creating a breeding ground for microbes that can become the source microbial problems are found throughout the cidery.

The use of ozone for disinfection is spreading throughout the cider industry, and is becoming an industry standard worldwide. As the benefits and cost advantages of ozone become more widely understood, the technology's role in cideries will grow.

APPLICATIONS:

- Barrel Rinse
- Floor Drain Rinse
- Keg Rinse
- Equipment & Tool Rinse
- Tank Rinse
- Barrel Gassing

Cleaning and disinfection procedures within a cidery take time, in fact, many cider-makers admit that it takes far more time to clean and disinfect the cidery than it does to actually make the cider. Traditional procedures start with a pre-rinse to knock down the large debris; then the chemical cleaning step typically using alkalis and acid based products to remove dirt, sugars, and other debris; a post rinse to remove the cleaning chemicals; then the disinfection rinse to reduce and destroy microbes often times using hot water, peracetic acid, chlorine dioxide or other products; and lastly a final rinse to remove the disinfectant.

However, when using ozone as the disinfectant it is often the case that the post rinse and final rinse can be eliminated. There are no negative effects of the ozone mixing with the cleaning chemicals, and because ozone is safe for food contact, the ozone disinfectant rinse can also be the final rinse.

Typical disinfection products can take 30-minutes or more to provide sufficient contact time for suitable bacterial destruction, whereas the proper levels of ozone can take mere seconds!

Further, if hot water is being used in the disinfection protocol it can now be eliminated, as the ozone rinse will use cold water only. Ozone not only saves time, but also saves energy and water costs.



ClearWater Tech, LLC - CALL US TODAY FOR DETAILS!
Ozone Systems for Water & Air Purification

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