

BREWERY SANITATION SOLUTIONS

ENVIRONMENTALLY PREFERRED
CLEANERS & APPLICATION EQUIPMENT



FAST MOBILE



FAST MOBILE



CENTRAL SYSTEMS



FOAMING SYSTEMS



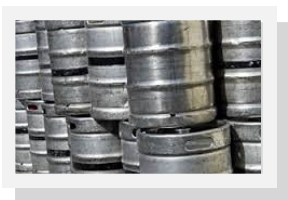
OZO KLEEN
Less Chemical - Cleaner Environment

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BREWING SANITATION SOLUTIONS

Ozone a Versatile Organic Sanitizer in the Brewery

Sanitation plays a critical role in the brewing industry. Historically, breweries have used chlorine (and/or other halogen chemicals), heat (hot water and/or steam) and acids for sanitation, but these methods have drawbacks and restrictions. The high energy cost of generating heat, the harmful byproducts associated with halogen chemicals and safety hazards of acids have made their use problematic. Many brewers have chosen to completely eliminate the use of chlorine and other halogenated compounds to avoid the formation of TCA (2,4,6-trichloroanisole) and other aromatic halogenated hydrocarbons which can impact beer flavors.



Ozone has several characteristics that make it excellent for brewery sanitation.

- Ozone is a stand-alone organic sanitizer which simplifies sanitation, is cost effective, safe to use, saves water and energy, and is environmentally friendly.
- Ozone is produced as needed on site, dissipates after use and minimizes the purchase, storage, mixing and disposal of chemicals.
- Ozone is a cold sanitizer which saves energy, extends barrel flavors, and minimizes bottling line maintenance costs and cool down cycles.
- Ozone kills a much broader spectrum bacteria, fungus and molds, yeasts, spores and cysts from 10 to 5000 times faster than halogenated chemicals (chlorine, iodine, etc.).
- Ozone was approved by a FDA Expert Panel as GRAS (generally recognized as safe) for use as a sanitizer in 1997 and was approved by FDA for use with fruits, vegetables, meat, poultry, etc. in June 2001 (food additive petition).
- Ozone was approved under USDA Organic Rule in 2000.
- Ozone reverts to molecular oxygen, leaving no by-products or residual contaminants.
- Ozone unlike halogenated chemicals (i.e. chlorine, iodine, etc.) ozone does not generate TCA precursors or dangerous halogenated hydrocarbon byproducts, such as THM's.
- Ozone destroys objectionable taste and odor causing compounds.
- Ozone is pH neutral, (does not change the acid/alkaline balance).



Application of Ozone in the Brewery

Ozone is a single source organic sanitizer in the brewery. Its use allows the brewer to produce a better product through the control of spoilage organisms, mold and mildew in the brewery. Brewery applications include the following:



- Fermentation and Brite Tank Cleaning/Sanitizing
- Bottles, Bottling and Line Sanitation
- Process Piping, Hose, Pump, Appurtenance (Clamp, Valve, Gasket, etc.) Sanitation
- Keg, Keg Washer/Racker Sanitation
- DE Filter and/or Plate & Frame Sanitation
- Wooden Tank/Barrel Cleaning & Storage
- Surface Sanitation



BREWERY SANITATION SOLUTIONS

Brewery Sanitation Products

Ozo Kleen produces quality cleaning products and equipment for the brewing industry. We have the ability to package the products in many different containers from 5 gallon jugs to 330 gallon totes.

Ozo Kleen is proud to provide a complete line of environmentally preferred cleaning products that are formulated and field-tested under stringent quality assurance, which keeps the safety of your employee as well as the environment at the forefront. Even though your company's cleaning requirements may be unique, we are able to develop a product that will meet your needs that will perform and be as cost effective as traditional cleaners are.

All of environmentally preferred products are manufactured under the following guidelines:

- No Phosphates
- No hazardous air pollutants
- Biodegradable chelating agents
- Non-flammable
- No 2-butoxyethanol
- VOC compliant
- No alkylphenol ethoxylates
- Use biodegradable detergents



Product Support

Ozo Kleen will **customize** product formulas to meet any specific sanitation or environmental need.

- Alkaline Cleaners
- Acid Cleaners
- CIP and COP Products
- Keg Cleaners
- Foam Cleaners
- Degreasers
- Floor Cleaners
- Ozone Gas Deodorizing
- Passivation Acid
- Conveyor Lubricants

Training Support

We provide our customers and employees with training including, chemical safety, HACCP, SSOP and Safety Data Sheets. Ozo Kleen is committed to providing customers with the proper information to insure all cleaning products are used, handled and stored safely.

