



Acidulous Technologies as pH³ Ocean Mist Restaurant & Food Service Advantages New for 2021 chlor *Organo* 2-LPM on Demand



Acidulous Technologies branded as pH³ Ocean Mist for food service has been developed in collaboration with "The Brass Ring Restaurants" 3 locations in Palm Beach County Florida. Owner Kim Byron caught on quickly recognizing how to eliminate unwanted pesticides & chemicals from their daily food service operation.

Since 2014 Kim and the other partners of the restaurant chain allowed for PBSWC Inc. to develop a variety of alternatives to pesticides for use in the restaurant. Using their facilities, experience, and expertise in the food service industry to guide the way, developing safer, cleaner, nontoxic alternatives for the daily operation.

In today's ever changing daily challenges to restaurant operation, Advanced High Amp Dual Polarity Electrochemistry has become a major and important part of their operation. pH³ Ocean Mist is just one of these safe solutions.

1st a brief background and description of Acidulous using Advanced High Amp Dual Polarity Electrochemistry Technology:

Acidulous is a specific electrochemistry technology. Acidulous is not a new technology. Acidulous was first engineered over 20 years ago. Back in the 1990's a request was made to ID&T to engineer a unit specifically designed to sanitize used wine barrels for reuse. 2 units were manufactured, and the trial was a complete success. Since then, this specific unit type has been used to develop other operational methods for commercial & industrial use by simply using different electrolytes creating specialized finished solutions. PBSWC Inc.'s original Acidulous unit was actually manufactured in the year 2000 and is still manufacturing top quality products today, 21 years later. Advanced electrochemistry equipment designed, engineered, and manufactured by ID&T will last a lifetime when used and maintained properly.

What are electrolytes? – Everyone hears the word electrolyte but what are electrolytes? Electrolytes are primarily in this context salts. Beverages with electrolytes added are simply adding NaCl (*sodium chloride*) or more commonly known as table salt. For food or beverage products it just sounds more impressive to say electrolytes rather than salt.

PBSWC only uses NaCl (sodium chloride) from a mineral source and in some cases KCl (*potassium chloride*) also from a mineral source as electrolytes for making alternatives to toxic commercial chemical solutions. The reason we only use NaCl and KCl is for 100% non-toxic human compatibility. In some cases, KCl is a milder alternative to NaCl especially in agriculture.

Commercial chemical solutions use far more salts, 26% or more as well as different salt types in combination increasing the power by chemical reaction creating specific solutions, unfortunately this type of process is typically toxic or hazardous requiring an EPA registration and protocol for “safe when used as directed” registrations. This is a false promise, they are not safe, their MSDS or SDS sheets will tell the true story. It is always recommended to read the MSDS / SDS sheets prior to using any EPA registered as hazardous solution. If you want the full unedited version search the EPA application for registration of the product. The longer the application the more hazardous it is, the longer the MSDS / SDS sheet, the more hazardous it is. The one thing you can be certain of is, if it has an EPA registration it is hazardous.

PBSWC uses less than 2% added electrolytes and increases their potential with high amp dual polarity electrical charge rather than chemical reaction, this is the difference between strong toxic reactions and safe clean reactions. The chemical method is cheap and easy to do so they are more popular. The most advanced method of producing solutions is by advanced high amp dual polarity electrochemistry, and also the most expensive so they are not so popular for those with profits as the priority. Those who do not want to use toxic chemicals with the risks, hazards, and liabilities associated find advanced electrochemistry very welcoming.

In electrochemistry for water there are 3 specific ranges. High pH (*alkaline*) & Low pH (*acidic*) solutions are produced in either high amp dual polarity membrane separation chambers (*Ionic technology*) or single polarity electrolysis units (*Nano technology*). Neutral pH range is the 3rd and solutions are produced in an advanced high amp dual polarity open or loop chamber for matched single ion bonding (*Ionic technology*).

- 1. *Single polarity positive charge*** produces an acidic solution, most well-known is HOCl or hypochlorous acid. These systems use a combination electrolyte of Sodium Chloride (NaCl) & Hydrochloric acid (HCl) for additional power in the solution. This is an unbalanced nano solution with a reduced “nano” cluster.

These solutions at best have an increased ionic product of 1.37 and a measurable available free chlorine. We do not use these generators they do not produce a pure stable product and do not produce enough energy in the final solution for true Ionics (*single ion / single molecule*). These solutions also require an EPA Pesticide Registration for a “safe to use as directed” approval. They are generally approved for non-porous surfaces pre cleaned and prepped for a “sanitizer”. This type of product is very limited in use. PBSWC does not use this equipment type.

2. **Single polarity negative charge** produces an alkaline “ionized” solution most known is ionized alkaline water for drinking. Some of these systems add electrolytes and some do not. This again is an unbalanced nano solution. These solutions at best have an ionic product of 1.37. We do not use these generators they do not produce a pure stable product and do not produce enough energy in the final solution. PBSWC does not use this equipment type.
3. **High Amp Dual Polarity (HADP) Separation Chambers** produce 2 solutions from 1 flow, 1 Ultra low 2.4 pH acidic and 1 Ultra High 11.8 pH alkaline from the same stream. These systems use an electrolyte injection for additional power in the solution. These solutions are cluster free with an ionic product of 6.45, equal to the ionic product in 200 degree water when heat is applied as the energy. This is the technology PBSWC uses.
 - a. **The Ultra High 11.8 pH** (pK_b^{15}) is produced through reduction and is the nontoxic, and non-corrosive alternative to NaOH- Sodium Hydroxide. This alternative solution is nontoxic and non-corrosive unlike other NaOH- solutions more commonly used as high alkaline and lye cleaners. Unlike these solutions Ultra High pH FEW does not require an EPA registration as Ultra High pH FEW is not recognized as a pesticide.
 - b. **The Ultra-Low 2.4 pH** (pK_a^{15}) is produced through oxidation and is the nontoxic and oxidizing alternative to HCl or hydrochloric acid. This solution is nontoxic although uses a non-pesticide bio selective oxidation reaction as the reactive oxygen species and available free chlorine species for its action. This solution is strong at 2.4 pH but still non-harmless to humans, animals, and plants. These solutions do not require an EPA registration for onsite manufacturing and / or use as they are not recognized as pesticides.
 - c. **The High / Low system.** (*Custom pK_a/pK_b %*) This is also a HADP membrane separation system although it does not use electrolyte injection and is primarily used for custom pH requirements.
4. **High Amp Dual Polarity (HADP) Neutral (Acidulous)** (pK_w) This technology processes 1 stream of water in a dual polarity chamber. The process starts with oxidation (*a positive charge*) and finishes with reduction (*a negative charge*). Through this process the ions are matched 1 acidic to 1 basic (*alkaline*) and bonded together for 1 single neutral ion suspended in 1 single molecule highly charged with an ionic product of 6.45. This is the technology PBSWC uses. These solutions do not require an EPA registration as they are not recognized as pesticides. Here are 3 examples of this technology:



Esperer.H2O Functional Electrolyzed Water is a neutral solution engineered as consumable hydration water. This system uses no electrolyte injection unless a RO system is used prior, then an alkaline additive is used to rebalance the contents to neutral at 50 ppm TDS.

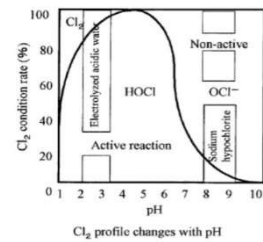
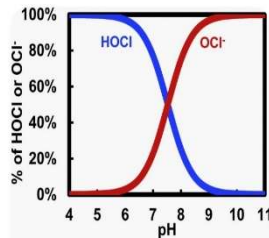


ElectroLIFE is a specific neutral chamber engineered for maintaining volumes of water in a batch system. This technology cleans, descales, and neutralizes bacteria from the volume. This system is best suited for facilities water treatment, maintaining hydrothermal no electrolyte nor alkaline additives are used in this process.



pH³ Ocean Mist / chlorOrgano is an Acidulous generator with electrolyte injection. chlorOrgano uses only 2% NaCl electrolyte injection to enhance the available free chlorine produced in the process of electrolysis. The pH is typically 7.4, the TDS is typically less than 5000 ppm the ORP's are neutral. Non Oxidative, Non Corrosive the delivery action comes from the 6.45 ionic products ability to deliver the bio selective organochlorine species through the membrane wall without destroying it, therefore acidulous technologies

are best suited for consumables especially fresh produce. These properties also make pH³ Ocean Mist efficient and effective in a variety of functions. pH³ Ocean mist requires no EPA registration nor exemption, pH³ Ocean Mist is not recognized by the EPA as a "pesticide". pH³ Ocean Mist is manufactured using only water and NaCl or table salt both of which are approved FDA food ingredients. Solutions like pH³ Ocean Mist with its available free organochlorine manufactured using only NaCl, Water & specifically electrochemistry are recognized by the USDA National Organics Program (NOP) as an approved synthetic organic. Electrochemistry is considered a synthetic as it is a manmade device even though the neutral organochlorine species is produced naturally in the process from NaCl and water only.



Note: The use of the terms HOCl & OCl- are for property pH comparisons only, pH³ Ocean Mist, chlorOrgano & Acidulous Technologies are neither HOCl nor OCl- as defined by the EPA



The Covid-19 epidemic of 2019 left food service with no cleaning or sanitizing solutions.

No one will forget the unavailability of cleaning and or sanitizing solutions especially chlorine compounds / products. If it were not bad enough that restaurants were shut down all together, when allowed to reopen there were no chlorine cleaning or sanitizing solutions available. The health department inspectors were checking all food service facilities after the start up was authorized. If they did not have a proper cleaning or sanitizing plan and solutions they were not allowed to open. Lucky for customers of PBSWC Acidulous solutions were available. Our restaurants and facilities were inspected by the local health department officials, when they checked pH³ Ocean Mist they got the thumbs up as the chlorine the Health Dept official was looking for was reading loud and clear on the test strips. pH³ Ocean Mist is specifically formulated for food service has a stabilized 150 ppm of available free organochlorine, measured with standard chlorine test strips, this is all the health department was looking for.

Chlorine is the preferred cleaning compound, method, and solution, not only by the health department but also the CDC. Chlorine is well known for its ability to do the best job with the least hazards but not all chlorine is made equal. Some chlorines are toxic and or hazardous therefore requiring an EPA registration as a pesticide such as the very well-known chlorine bleach (*a combination of OCl⁻ or Hypochlorite and NaOH or Sodium Hydroxide Lye, everyone knows chlorine bleach is tough stuff*) and the recently popular HOCl or Hypochlorous Acid (*a combination of NaCl and HCl still tough stuff is used daily*).

pH³ Ocean Mist is not recognized by the EPA as a pesticide despite its organochlorine species content as the naturally accruing neutral organochlorine is made from only NaCl (*table salt*) and water. There are no chemicals added and no chemical residues produced nor left behind.

PBSWC Inc. provides finished pH³ Ocean Mist and on demand equipment for making on site. Control your own solutions with a chlor *Organo* model AL 790A (2) LPM on demand unit, never run out of solution again nor have to pay the high price of solutions when demand is greater than supply.

Restaurants and Food Service in general have a wide variety of uses for Acidulous technologies. For the specific purpose of this document, we are going to stick to pH³ Ocean Mist, Acidulous with NaCl Electrolyte Injection producing a neutral ion with 6.45 ionic product (IP) solution with the NaCl added for enhancing the naturally accruing available free organochlorine (AFOC) and balanced to 7.4 pH for human compatibility along with a neutral oxidation reduction potential (ORP), and with virtually no Cl₂ gas. This keeps pH³ Ocean Mist very pleasant to use with a pleasant clean fresh scent just like a walk on a sandy beach with a fresh ocean mist spray in the air.

Palm Beach Springs Water Company Inc. (PBSWC) started with advanced high amp dual polarity electrochemistry technologies for restaurants and food service in 2014. Acidulous with NaCl electrolyte injection now branded as pH³ Ocean Mist took to the top very quickly with its ease of use and versatility. Specific uses in restaurants and food service include but are not limited to some of the following examples:

Washing Fresh Foods - Food Preparation pH³ Ocean Mist is the perfect fresh food wash. The neutrality of the solution makes it food safe. Most solutions are too harsh for fresh foods. Their pH is either too acidic, oxidizing

and burning its way past the membrane or too high alkaline corrosive, dissolving the membranes and organics. They break down or destroy the membrane of the cell one way or the other causing damage, this is how they deliver their chlorine species past the membrane wall for the “kill”. Therefore, all corrosive and or oxidizing solutions are pesticides, this is their hazard to organics, humans are 100% organic therefore they are dangerous to humans and why they must register as controlled/regulated pesticides by the EPA.

The ionic power of pH³ Ocean Mist works differently. Ionics is a single ion suspended in a single molecule at 0.0001 micron in size. This incredibly small size along with the high charge of 6.45 Ionic Product (IP) allows for the ion to pass through the membrane of a cell without destroying it. The single ion sizing allows for the molecule to carry the ion, its payload, and simply pass by the membrane wall, the molecule and contents are too small for the membrane to filter out, unlike the chemical solutions which are made up by clusters of components have no way of passing buy so they must break in through destroying the membrane wall. The single molecule of pH³ Ocean Mist delivers the AFOC inside the cell for neutralization of the bacteria without oxidation or corrosion and without damaging of the cell’s membrane. Fresh foods are safe and clean, the freshness is extended by neutralizing, eliminating, and or flushing the bacteria out of the environment. The food is now protected without oxidizing or corroding the membranes of the cells, and without decreasing the freshness of the product.

pH³ Ocean Mist removes the waxes and chemicals used in commercial food processing. If you ever visited a produce pre-cooler or packing house you would never eat another vegetable without a thoroughly washing it again! They are prepping fresh food for storage and transport not for consumption at dinner time. There are all sorts of solutions used to help preserve the product long enough to get it to a store and your homes dinner table. These components need to be effectively cleaned off no matter if found to be “safe” or not.

This is no different for meats, poultry, pork and sea food / fish. pH³ Ocean Mist is the perfect solution for cleaning and will not harm nor change the taste of the food being prepared. pH³ Ocean Mist is the perfect solution to use to eliminate cross contamination, use on cutting boards and surfaces as well as knives and mixing utensils. pH³ Ocean Mist is safe for the cook line as it will cause no damage nor alter the taste of food on the line when using for quick clean ups. Its less than a little dash of salt in comparison.

Restaurants & food Service establishments maintaining a clean - healthy and safe environment. Wait staff and line cooks use a spray bottle as well as a bucket & rag to maintain their areas. Typically, a restaurant purchases cleaner/sanitizer from their supplier. These cleaner/sanitizers are typically concentrates mixed with the available water on site. Since tap water is not the best medium for mixing, the sanitizer destabilizes quickly, typically between 1~1 ½ hours. The strength of the solution is measured with chlorine strips, when the solution falls under 100 ppm AFC the solution must be changed out as it is no longer considered effective by the Health Department standards. When mixing the solution, the strength is also checked and must be below 200 ppm AFC as anything over is considered a health hazard. The county or city health department stops in from time to time to spot check these buckets and bottles making sure proper free chlorine levels are present, if they are not the restaurant is cited for noncompliance. pH³ Ocean Mist is not a hazard when over 200 ppm AFOC but must comply with this rule also just for simplicity as pH³ Ocean Mist does not have a product specific approval to say other, pH³ Ocean Mist is manufactured at approximately 150 ppm AFOC for this commercial food service compliance.

This measured chlorine strength situation is always a problem for the facility. One of the biggest problems the operation has is members of the staff who do not like using the harsh concentrates for a variety of reasons. The reasons all center around the oxidative and/or corrosive properties of the concentrates.

The staff suffer from skin irritation (*raw hands*) due to over exposure of the corrosive and/or oxidizing agents; women specifically do not like to use these concentrated cleaning/sanitation solutions as the corrosive/oxidizing properties damage their hands making them rough, dry, and raw. The nails they spend a great deal of money on are also ruined.

Sometimes the facility will be terribly busy, the staff will skip the concentrate only putting tap water in the buckets to save time. Sometimes it is just lazy employees who just do not care about the safety protocol putting the facility as well as the patrons at risk with no concern. This leaves the facility at risk and threatens the liability of the operation as well as risking a citation from the health department inspector on a surprise visit. The cause, harsh concentrates and human nature, the solution pH3 Ocean Mist.

Switching to pH³ Ocean Mist eliminates risk, hazards, and liabilities!

pH³ Ocean Mist is stabilized and the solution is either delivered ready-to-use or made on site in a on demand unit ready-to-use solution, no mixing with water means it does not destabilize. The AFOC properties can last all day and into the next. So, when the staff changes the solution for their specific shift, the solution lasts the entire shift, there is no chance the health department inspector will find a weak solution being used.

This also helps the management identify employees not following protocol, putting everyone at risk by not using the proper solution. This situation was found in the beginning of the 1st R&D project, a few employees were caught with plain water in their buckets, these days the staff knows there is no cheating with pH³ Ocean Mist, there is no excuses, if they get caught they get fired.

Tap water is typically less than 300 ppm TDS, pH³ Ocean Mist is about 4500 TDS or more, so when the management checks the solutions TDS with a meter in a "dead bucket", there is no guessing whether the bucket has pH³ Ocean Mist in it or just water, the management can properly identify the real problem, laziness.

The solution is neutral and non-oxidizing / non-corrosive, so it does not cause cellular damage to hands or skin, it does not destroy the nails or any nail treatments the women may have. The solution is healing to the hands and makes them soft and smooth. The women like using it, they do not avoid it anymore. Now they have no reason not to use the proper solution, the restaurant never gets sited for a weak bucket, weak buckets have been eliminated.

1. Clean tables and chairs (*indoor or outdoor*) without worrying about damaging surfaces or slimy residue smear. pH³ Ocean Mist is safe for all surfaces.
2. Clean soda fountain parts, pieces, equipment, nozzles, and diffusers without having to worry about chemical residue mixing or changing the taste to the beverages.
3. Clean floors easily leaving a fresh clean scent. Keep the dirty mop head cleaner and fresher. Breaks up and removes grease, no more slippery floors.

4. Clean cutting boards deep cleaning inside the porous material keep them looking like new even hard wood cutting boards.
5. Use on the cooking line for quick clean ups, no risk to the food it is just salty water. Just spray or wipe with no risk.
6. Great for cleaning Stainless Steel especially unfinished stainless. Makes S.S bright and shiny with no streaks left by chemical residue.
7. Great glass cleaner no streaks just pure clean bright glass.
8. Great hand cleaner will not harm skin from over usage, it has a healing quality to it.
9. Fantastic bathroom cleaner kills the bacteria that causes odor. Can even use as a maintenance spray between cleanings for smelly bathrooms.
10. Clean kitchen equipment of all kinds with out having to worry about corrosive damage.
11. Use behind the bar to get rid of the bar smell. Can be used as a sanitizing rinse for the bar glasses. Clean the liquor bottles with no worry of getting a chemical in the bottles.
12. Clean garbage cans to neutralize the smell of the cans.
13. Clean fixtures keeping them bright and colorful.
14. Clean inside coolers eliminating mold and mildew effectively.
15. Clean draft beer lines & equipment components with no rinse required, no chemical hazards!
16. Eliminate Health Department citations for weak cleaning buckets
17. Use as an ultrasonic aerosol air cleaner keeping the facility smelling fresh with out fragrances influencing the smells of the fresh cooked foods coming out of the kitchen.



Ultrasonic Aerosol Air Cleaner While the CDC recommends cool mist humidifiers for Covid-19 symptom relief, evidence suggests they could be key to prevention. But what to safely use in a humidifier?

Ultrasonic Cool Mist Humidifiers using pH³ Ocean Mist as the humidification solution becomes a highly charged electrolyte aerosol cleaner effectively binding particulates together neutralizing and removing them from the air of a controlled space. The bonus is the AFOC is also present and stable in the highly charged aerosol distribution.



The question, what to use in an ultrasonic humidifier? This question is key and why pH³ Ocean Mist was specifically engineered for ultrasonic humidification distribution as a safe and clean method.

To use typical tap water is not recommended. Most do not realize the dangers of humidifying “tap water” from an unknown source. This water can be full of bacteria, pathogens and chemicals of all types used in the process of water treatment. Distilled and or RO purified water is always recommended for this reason although these water types are useless for anything other than increasing humidity.

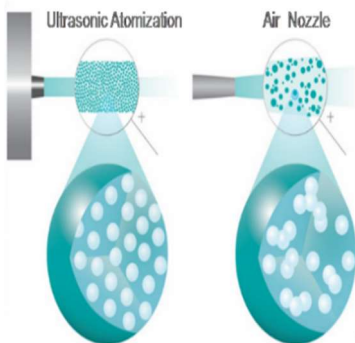
To use ultrasonic humidification as a distribution method delivering aerosol cleaning components to the entire space, you must have safe particulates such as highly charged NaCl electrolytes to use as the tools binding the bad particulates together making removal a simple task. Distilled, deionized and/or reverse osmosis zero waters have no electrolytes or any other components, therefore they are “zero” water.

pH³ Ocean mist is enhanced with NaCl electrolytes just for this reason, NaCl for human compatibility, balanced to approximately 7.4 pH for human pH compatibility. neutral ORP for human compatibility. naturally accruing neutral organochlorine for human compatibility, pH³ Ocean Mist requires no EPA pesticide registration as it is not recognized by the EPA as a pesticide and for these reasons you can be assured pH³ Ocean Mist is 100% safe.

pH³ Ocean Mist is a huge advantage to the facility and staff. Even before Covid-19 a restaurant is a risky place to be and work, when it comes to colds, flues, and virus of all kinds. Any restaurant owner, manager or employee knows the environment is no different than a school or any other workplace. When 1 person comes in sick, the virus will spread like wildfire. Even the guests are at risk of catching as well as being the host.

This situation is all but eliminated when using pH³ Ocean Mist in an ultrasonic humidifier as an aerosol distribution air cleaner, it is not a spray droplet that just falls to a surface quickly, most cleaners/sanitizers are hazardous to the respiratory system, so they do not want the chemical suspended as an aerosol, they use droplets so that the solution falls out of the air you are breathing.

pH³ Ocean Mist is safe to breathe, its virtually no different than going for a walk on the beach during a sunny day with fresh ocean mist spraying on you.



pH³ Ocean Mist as a highly charged-neutral-ionic-ultrasonic-aerosol air cleaner solution for distribution by standard ultrasonic cool mist humidifier devices becomes a very special 1 of a kind solution. pH³ Ocean Mist as we discussed is only water with NaCl electrolytes added. After processing through an acidulous technologies chamber the ions are balanced, bonded, and the potential or power of the electrolyte is increased. Ultrasonic technology frequencies enhance the natural frequency of the electrolytes in a compatible coordination enhancing further the stabilization and power of the solution overall.

pH³ Ocean Mist is ultrasonically released/dispersed as a neutral single highly charged electrolyte ion, suspended in a single molecule of water, within a controlled space. The charge of the ions is what disperses and suspends the ions in the space, no special ventilation or air movement is required. The ions all hold the same charge, they cannot cluster together. The ions repel each other although they are trapped in the controlled space, therefore the power of the ions holds the power of the ions in the controlled space. Anywhere a 0.0001 micron particle can fit, the force of the other ions will push it in that space. The entire space is controlled at 1 time, rather than taking the air from the space and attempting to pass it through a unit, the unit delivers the electrolytes to the entire space. The ability to dominate the space with highly charged electrolyte ions to any saturation requirements changes who is in charge of the space. Now you once again own the space.

pH³ Ocean Mist It is virtually no different than breathing an ocean breeze, well a little lighter, the oceans are typically 80,000 ~ 100,000 ppm NaCl, pH³ Ocean Mist is less than 5,000 ppm NaCl and you do not have the influence of contamination from the outside air environment as outdoors.

The highly charged electrolytes bind particulates in the air together increasing their sizing as they collect everything in their path (*like a snowball*) until they are too large to suspend as an aerosol in the environment any longer. Now the particulates are large and easily trapped in the HVAC filtration system or drop to the surfaces where they are easy to clean up.

All dirt and contaminating particles spread in this environment as an aerosol, to distribute a highly charged cleansing and neutralizing aerosol is the most effective and efficient way to clean all the air within the controlled space. The "good" aerosol particles take over the environment 100%, the air from the environment does not have to pass through a filtration or ozone type unit, the aerosol spreads throughout the environment by the power of the electrical charges repelling each other.

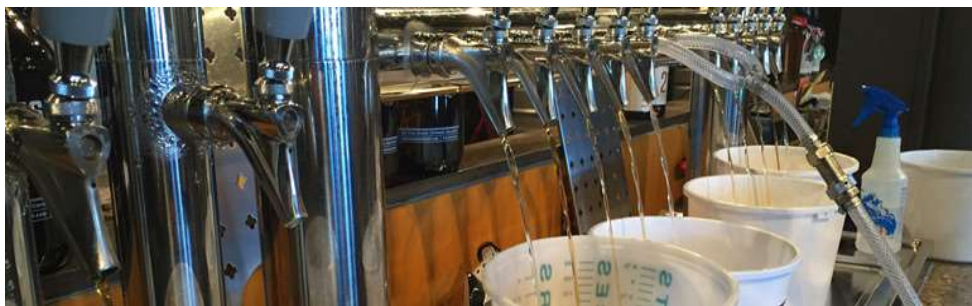
Nothing in the space can hide from the highly charged electrolytes. The AFOC is suspended in the molecule and held by the ion, this aids in the cleaning and neutralizing of the environment. The AFOC creates an aroma of clean, a fresh scent as it also eliminates the bacteria that causes odor.

It is said the aroma of the Ocean is a combination of 1000's of organochlorines (organic chlorine species) and is why we call our organochlorine product pH³ Ocean Mist.

pH³ Ocean Mist as an aerosol when used properly protects the facility, protects the employees, and protects the customers. This is an amazingly simple process, simple and inexpensive. Saves the operation money as well as employees time off from colds, flu's, and viruses of all kinds by keeping an environment less likely to have these contaminants particulates hanging around.

Helps keep the facility cleaner as no debris/particulates are floating around in the air. The ionic chlorOrgano aerosol makes its way through the HVAC system cleaning and neutralizing the duct work as well. pH³ Ocean Mist creates and maintains a clean healthy environment for everyone.

***Draft Beer Line Cleaners* DANGER – DANGER - DANGER!!!**



Do you know what is being used in your facility to clean your draft beer lines?

The most common concentrate used by all the service company's is sodium hydroxide (NaOH-) LYE.

Look up just about any draft beer line cleaner and most are NaOH- lye, the ones that are not are still dangerous and still have strict protocols to follow, big surprise most do not follow them, most have never even read the protocols!

The question remains whether these EPA Class 8 hazardous chemicals are even authorized for cleaning draft beer lines in commercial food service. No one seems to know, no one is inspecting or auditing these services, no licensing is required. The liability is on the business owner who is licensed for food service and is supposed to know.

The information I understand to be true is this. If a product is a EPA registered pesticide than in order for it to be used in food service it must have an FDA specific label for the purpose it is being used. FDA also requires a GRAS registration for the same. In Florida the Fl. Dept. of AG also requires a specific label registration. For a substance of any kind to come into direct contact with a consumable it must be a FDA food ingredient. So, answer how come none of the cleaners being used have any of the above? Why doesn't any one care? Why are they not regulated to hold them to the safety standards by EPA, FDA, USDA, GRAS. FSIS, OSHA and the rest? Put all that aside pH3 Ocean Mist is the perfect draught beer and beverage line cleaning solution.

Sodium Hydroxide (NaOH-) Lye is an EPA Class 8 Hazard – Corrosive “extremely dangerous to humans” and all organics. Most restaurant operational managers have no idea this dangerous and poisonous solution is being brought into their facility and used to maintain their consumable beverage delivery system.

Most restaurant facility managers just trust the service is following some sort of proper protocol. When researching this subject, Managers were asked if they knew what the line cleaning service is using to clean their draft beer system, the typical reply is “beer line cleaner”. When the Managers were asked if they know what the beer line cleaner is, the reply is typically “no”. Owners and managers need to ask what is being used and ask for MSDS / SDS sheets on the chemicals, this is their responsibility and if class 8 corrosives are being used MSDS or SDS sheets are supposed to be on file for emergencies.

None of the facilities researched keep a SDS or MSDS sheet on site for this EPA Class 8 hazardous chemical although they are required to by code. If a solution is being brought into and used in the commercial food service facility they are required to have one on file especially if it is dangerous.

It is the responsibility of the business owner and the management of the facility to know what is being brought into the facility and what it is being used for.

There are a variety of reasons why this is very important especially when it is an EPA Class 8 hazardous chemical solution:

- 1. If something should happen to the serviceman during the service, how would you know what to do? It is in the SDS / MSDS!*
- 2. If a spill results and a chemical reaction takes place especially when it meets the interior of an aluminum cooler with no ventilation, how will you know what to do? It is in the SDS / MSDS!*
- 3. If a customer should get sick from chemical residue not properly flushed in their beverage, how do you know what to do? It is in the SDS / MSDS!*
- 4. If emergency services are called how will they know what it is and the proper protocol? It is in the SDS / MSDS*

These are all typical situations and happen every day somewhere to someone, it is not a matter if, but a matter of when is it going to happen in any given facility, it is simply a law of averages situation. It is typical human error and why there is a written EPA protocol in the MSDS/SDS.

What would management tell emergency services once they arrived as to what happened when they do not even know themselves?

How would emergency services know how to respond? The proper information for emergency response is important with EPA Class 8 Corrosives just as any EPA hazardous solutions. All the required information is included on the SDS or MSDS sheet and why it is required to be on file.

There is story after story posted online about the dangers of draft beer line and equipment cleaners, lives lost, individuals blinded, customers sickened by consumption and employees chemically burned. It is more common than not.

Typical Beer line cleaner is extremely dangerous. Lye is a strong corrosive; lye is engineered to dissolve organics. Lye can dissolve hair, nails and even bone. Lye is so dangerous a mere 7 drops is lethal to a 150lb human, an accidental splash in the eye is certain to cause blindness as the solution will dissolve the cornea, consumption at the least will cause a violent reaction and if digested will start to dissolve the organs it meets, the extreme is when multi organ failure takes the recipients life. Draft beer line cleaner is one of your most dangerous liabilities and most do not even know it, using dangerous draft beer line cleaners is not a necessary risk, use safe and clean pH³ Ocean Mist as the alternative.



pH³ Ocean Mist eliminates this risk completely 100%. Although pH³ Ocean Mist is not a beverage, consuming it will cause no harm whatsoever, it is just mildly salty water barely brackish. The natural accruing neutral organochlorine species is not a chemical, it destabilizes quickly when overwhelmed by organics and turns back into harmless NaCl table salt.

pH³ Ocean Mist does not even require a rinse out, there is no chemicals to rinse out. The water and salt do not change the taste of the beverage, well they make the beverage taste better as they clean the lines very well; clean system means better tasting beer!

Lye uses the corrosiveness of the high alkaline solution to dissolve the organics built up in the beverage line. They pump the solution into the line, they then let it soak while they clean the heads, then they are supposed to rinse it out, but if they do not do a good job, God help the poor individuals who get the 1st few beers at a minimum.

Have you ever tasted a tingy or tangy taste in your draft beer? That is the chemical reaction with the beer that makes that distinguishable taste come out. This is your body's auto function signal telling you not to drink it, that something is wrong. Listen to your body it knows.

The tingy or tangy taste is your 1st warning sign not to drink the beer, your body knows better and sends you this signal. Some professionals claim the chemical build up in the line from soaking is what also causes the yeast to stick inside the lines as well. Chemical beer line cleaners generally have a negative electrical charge, the beer line equipment has a positive charge, the cleaner has no choice but to scale on the wall of the beverage line by magnetic attraction. The scale provides a place for the yeast to build up. The math is easy, get rid of the caustic alkaline toxic cleaners and solve the entire problem.

The lye scales the lines then slowly releases beer after beer, sometimes "flakes" of cleaner scale with break off or release, clueless customers consume the beer with no idea. A percentage of these people get sick from mild to severe even death. How many people would order draft beer if they knew this information?

Most all problems with draft beer dispensing being bad taste, yeast build up, line scale build up, chemical residue, and consumer risk all comes from using chemical cleaners, stop using the chemicals and solve all the problems. pH³ Ocean Mist eliminates these problems.

pH³ Ocean Mist uses the power of Ionics to break up the organics not corrosion. The highly charged electrolytes have the same power as boiling water (*6.45 ionic product*) but without the heat. The AFOC neutralizes the environment and is easy to measure for efficiency, just read the chlorine strip of what is coming out the faucet or tap and if the AFOC is still present there was more than enough to do the job, if it does not register than keep cleaning until the chlorine is measurable.

The solution will not harm the equipment, serviceman, product, or customer. No PPE of any kind is required, as no hazards are present. pH³ Ocean Mist does not require a MSDS / SDS sheet although we supply one anyway so in the event of an emergency there is no doubt it is safe and not a contributor to what ever is happening at that time whether a fire or maybe even a different chemical spill.

Beer line cleaning is now safe, consuming beer from the system is now safe. pH³ Ocean Mist eliminates all risks, hazards, and liabilities for service, the facility, and the consumer.

Drinking beer responsibly is not supposed to be hazardous to your health! With pH³ Ocean Mist, draft beer is simply safe and refreshing as it should be.

Paul E. Seaver
Palm Beach Springs Water Company Inc.
1551 NW 24th Dr.
Okeechobee, Florida 34972
(561) 693-9015
pauladjuster@gmail.com
<https://ph3cleanscents.com/>

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