Information Memoradum

Whitepaper
July 2013

COMPANY BACKGROUND

Tersano is a Canadian company known foremost for its line of Lotus brand appliances which use ozone (O3) to treat water, or transform it into a sanitizing agent. The lotus® Sanitizing System is the company's most prominent product. It was declared one of the best inventions in 2006 by Time Magazine and has been highlighted in several other publications such as Today's Parent, The Globe and Mail and The Washington Post. It has also received television media attention when the system was featured on an episode of "The Big Idea with Donny Deutsch". [1]

Steve Hengsperger founded Tersano in 2002 from the remains of a Welland-based company that had developed an ozone based water treatment system. From this technology Hengsperger, who has a Mechanical Engineering degree from the University of Waterloo, created another product that harnesses the power of ozone: the lotus® Sanitizing System. It infuses tap water with ozone creating a powerful sanitizing agent that is free of harsh chemicals. The ozonated water is 50% stronger and 3000 times faster than bleach, killing 99.99% of bacteria and viruses. In 2006 the product was ready for its launch after being approved by the United States Environmental Protection Agency (EPA), U.S. Food and Drug Administration (FDA), Canadian Standards Association (CSA) and Underwriters Laboratory. [2]

In 2008, the company launched its commercial product line - the lotus® PRO Cleaning System.

Commercial and residential product lines share the same aqueous ozone technology that saw the consumer model named as a Time Magazine Best Invention 2006 for it's ability to kill e.coli, salmonella and other pathogens quickly and effectively without chemicals.

AQUEOUS OZONE VS. TRADITIONAL CHEMICAL CLEANERS

Most cleaning staff use a wide variety of cleaning products and specially formulated cleaning products for various uses. While these cleaning products work hard to clean and deodorize, they are also potentially toxic not only to those that use them but also to the people that enter the facilities and surrounding areas. Not removing toxic chemicals from these facilities puts many at risk.

Chemical cleaners may eliminate dirt but they also cause a vast amount of indoor pollution. With the average person spending 87% of their time indoors [3], it is no surprise why this is not the best option.

Most cleaning products do not list all of their ingredients. In fact, 80% of chemicals lack detailed toxic information [4] as manufacturers are not required to list all the ingredients on the label of their cleaning products. With this in mind, we are unaware of what we are using and the short and long term effects that it may have at any level of exposure. Whether used on floors, desks, washrooms, or common areas we are continually exposing ourselves to cleaning products that may have adverse effects due to possible toxicity.

TERSANO'S COMMERCIAL PRODUCT LINE

The lotus® PRO High Capacity Unit is an organic commercial cleaning solution that produces aqueous ozone using tap water and electrical power, on-the-spot and on demand. The lotus® PRO High Capacity Unit produces 3-4 gallons of aqueous ozone in one minute.

Aqueous Ozone is a unique alternative which is a water-based ozone cleaner. Water is saturated with ozone which eliminates pathogens and contaminants through oxidization. Products such as the unit patented by Tersano Inc. creates this cleaning solution by filtering oxygen molecules (O_2) from the air, passes them through an electrical field, which turns it into ozone (O_3), and then infuses the ozone into water. Aqueous ozone when used as directed eliminates germs, odors, stains, mold, mildew and other contaminants on any item or surface before changing safely back into water and oxygen. It is environmentally more benign than many alternatives as it reverts to water and oxygen after cleaning. [5]

a) With the lotus® PRO high capacity device and series I stabilizer cleaning and sanitizing can be extended up to 4 hours. [6]

b) With the lotus® PRO high capacity device and series II stabilizer cleaning and sanitizing can be extended up to 24 hours. [6]

In general terms, a cleaner is considered effective if it removes 85% [7] or more of soil on hard surfaces like ceramic, steel, glass, chrome and plastics. The standard for approval as an EPA compliant sanitizer is more rigorous.

According to regulatory protocol, a sanitizer must kill 99.9% [8] of test bacteria on a hard surface within 5 minutes. On a food contact surface like a cutting board, it has to kill 99.999% [9] of the test bacteria within 30 seconds. Sanitizers are considered to be wide spectrum eliminators of bacteria, viruses, mold, mildew and fungi.

The versatility of lotus® PRO is unprecedented in its ability to clean and deodorize efficiently while reducing the need for rinsing, chemical handling, mixing, storage and training. This powerful product can be used for a multitude of applications and is specially formulated to provide the right cleaning solution for all educational facility needs.

The lotus® PRO High Capacity Unit is a single solution for all cleaning requirements eliminating the need for multiple cleaners and toxic chemical -By using an aqueous ozone cleaning option, you will get more cleaning for less money.

Reducing your operating costs is easy because there no need for expensive chemical cleaners all while providing a safe and effective cleaning solution for your facility. By freeing up funds that you would be spending on expensive chemical cleaners, there will be a substantial cost savings that can be recalculated in to other departments.

HOW LOTUS® PRO WORKS

Inside each lotus® PRO High Capacity Unit, electrical energy is used to create ozone gas from the air we breathe. This ozone is water soluble and is infused into tap water, creating aqueous ozone. A powerful natural cleaner and sanitizer, aqueous ozone quickly eliminates soil and pathogens safely, without chemicals, vapors or residues and no need for chemical warning labels. Aqueous ozone is one of the safest cleaners evaluated by TURI based on the TURI screening tool and scored a perfect 50 out of 50 (See Appendix A). [10]

CURRENT OZONE USERS & COMMON APPLICATIONS

The sanitizing power of aqueous ozone along with approval by regulatory bodies like the EPA, FDA and USDA have made for widespread large-scale use; in food processing, water and beverage bottling, drinking water purification, produce and pharmaceutical sanitizing. Leading consumer products companies including Del Monte, Safeway, Crystal Springs Coca-Cola, Kimberly-Clark, P & G and Sunny Delight and many others [11] have been using ozone to sanitize and disinfect without residues for decades.

Aqueous ozone is one of the most powerful cleaners that can be used in a multitude of ways in numerous industries. Aqueous ozone contains a powerful anti-microbial character that is much stronger than bleach. Because of this, ozone is more powerful than chlorine and much faster at destroying microorganisms.

Aqueous ozone is an extremely effective, safe, and economical method of reducing common bacteria, fungi, molds, mildew, and viruses on surfaces in our rooms, kitchens, common areas, work place areas, bathrooms and health care facilities. Aqueous ozone's powerful oxidizing action quickly reduces trapped chemical residues to harmless by-products.

Other benefits of using aqueous ozone to clean include:

- No chemical residue
- Scent-free
- Powerful anti-microbial power
- No need to purchase harmful and expensive chemicals
- Less harsh on metal, wood, carpet and fabrics
- Reduces chemical handling and storage
- Flexible uses in most industries and applications
- One time training for staff to use
- Safer cleaning option for employees
- Cost effective

HOW AQUEOUS OZONE CLEANS & SANITIZES

Aqueous ozone is created when introducing an extra oxygen atom to an oxygen molecule and water molecules. This combination creates a highly effective cleaning agent that breaks down dirt, grease, and other contaminants in the same way as toxic cleaners, but naturally.

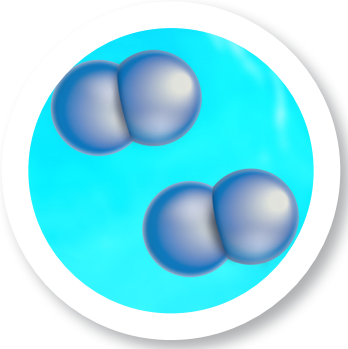
When used as a sanitizer/disinfectant, aqueous ozone is a broad range anti-microbial agent that works faster and more effectively against pathogens than chlorine bleach and hydrogen peroxide, without fumes and toxic residues like dioxins and tri-chloramines. Because of its toxin-free sanitizing action, aqueous ozone is considered safe and environmentally friendly.

The process can be show in four simple steps:

Oxygen from the air is safely turned into ozone then infused into ordinary tap water.

The ozone is attracted to germs, stains and bacteria.

Harmless to people, the ozone quickly attacks and eliminates contaminants it comes in contact with.



Only pure oxygen and water remain after the ozone cleans and sanitizes.

Over 2000 North American municipalities use ozone for their drinking water purification needs. The US Army uses it for portable water sanitization and the Olympics use ozone in their competition pools.

Commercial cleaning and janitorial applications are newer territory. Locations like schools, hotels, quick service restaurants, hospitals; public washrooms, waiting areas and kitchens are still being cleaned using chemicals. Unfortunately, many of the chemical cleaners used may be hazardous and potentially dangerous to users and occupants. Green cleaners are more expensive, don't work well as sanitizers and have a large carbon footprint because like chemical cleaners, they consume resources for packaging, transportation, storage, handling and recycling or disposal. [12]

REGULATORY APPROVAL FRAMEWORK

lotus® PRO and the aqueous ozone solution it makes are subject to close regulation by a number of government agencies including the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the US Department of Agriculture (USDA) and Department of Labor Occupational Health and Safety Administration (OHSA) as follows:

EPA: The lotus® PRO device itself , the aqueous ozone it manufactures and the performance claims are subject to separate and distinct treatment by the EPA:

lotus® PRO High Capacity Unit: The device itself does not require registration but it must be manufactured in an EPA registered establishment. Production in an unregistered establishment is a violation of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA – 1947). lotus® PRO's EPA registered establishment number is 089093-CAN-001. The lotus® PRO High Capacity Unit also adheres to strict EPA regulations with regard to labeling, production, record keeping, packaging and import/export requirements.

lotus® PRO Aqueous Ozone Solution: With the exception of ozone, FIFRA mandates that any substance intended to prevent, destroy, repel, or mitigate any pest, must be registered before sale or distribution. To obtain an EPA product registration number, a manufacturer must submit specific data regarding it's safety and the effectiveness. Because it is chemical-free, aqueous ozone is unique in the opinion of the EPA. Unlike chemical, biochemical and microbial pesticide substances, the EPA does not require a product registration number for aqueous ozone.

Aqueous Ozone Performance Classification: The aqueous ozone made on demand by lotus® PRO is classified by the EPA with regards to how it be may effectively used, e.g. as a general cleaner versus a hard surface sanitizer. lotus® PRO's aqueous ozone solution is classified a food contact surface sanitizer because an EPA approved lab followed strict protocol and showed a 99.999% reduction of test bacteria in 30 seconds or 0.3ppm/ 650 ORP.

FDA: In 1997 the FDA approved the use of ozone as an indirect food additive through use as antimicrobial agent with indirect contact with foods. [13] In 2002 the FDA approved ozone for use on food contact areas and directly on food with its Generally Regarded As Safe (GRAS) designation. GRAS substances are those that are intentionally added to food which are reviewed and recognized by qualified experts, as having been adequately shown to be safe under the conditions of its intended use.

USDA: The Organic Foods Production Act (OFPA) authorizes the establishment of the National List of allowed and prohibited substances. The National List identifies aqueous ozone as a substance that is allowed for use in organic crop and livestock production. [14]

OHSA: Regulations address the toxicity of gaseous ozone and acknowledge the safety of aqueous ozone. Strict limits are set for exposure to gaseous ozone while no limits are set for exposure to aqueous ozone even with high concentrations. Aqueous ozone is considered to pose no health or safety threats; [15] requires no safety training, certification or reporting; and requires no protective gear or compliance for safe use. Additionally, the aqueous ozone solution produced by lotus® PRO carries a zero health hazard, reactivity and fire hazard NFPA ratings.

TÜV SÜD: TÜV SÜD America Inc, a subsidiary of TÜV SÜD AG, is a business-to-business engineering services firm providing international safety testing and certification services. Founded in 1987, TÜV SÜD America has grown to more than 1,000 experts in over a dozen locations throughout the U.S., Canada and Mexico. Operating under the brand names of Product Service, Management Service, Industry Service, Automotive and PetroChem, TÜV SÜD America has partnered with thousands of companies throughout the NAFTA region, assuring product and management systems excellence, and acceptance in the global marketplace.

CSA-UL: CSA International (Canadian Standards Association), a member of the CSA Group, is a provider of product testing and certification services for electrical, mechanical, plumbing, gas and a variety of other products. Recognized in the U.S., Canada and around the world, CSA's marks appear on billions of products worldwide.

CSA International certification marks indicate that a product, process or service has been tested to a Canadian or U.S. standard and it meets the requirements of an applicable CSA standard or another recognized document used as a basis for certification.

For consumers, CSA International certification marks are intended to provide increased assurance of quality and safety. For manufacturers, international recognition of the mark may help to ease their entry into North American markets. CSA International certification marks are accepted by many North American regulators and by a large number of North American retailers. Billions of products bearing CSA International certification marks are found on the shelves of well-known retail chains and sold by major product distributors.

HEALTH CANADA & CFIA: Approved by Health Canada and Canadian Food Inspection Agency (CFIA) through a letter of non-objection for the use of lotus PRO High Capacity Unit as cleaning, deodorizing, disinfecting and sanitizing unit for food premises, food plants and other commercial and industrial use.

Health Canada is the Federal department responsible for helping Canadian maintain and improve their health, while respecting individual choices and circumstances. To achieve this goal, it relies on high-quality scientific research, conducts ongoing consultations to meet Canadian's long-term health care needs, releases information to Canadians to protect them from avoidable disease risks and encourages Canadians to take an active role in their health. To help hold health care costs down and improve quality of life in the long term, the Department is committed to support research and work collaboratively with the provinces and territories to test ways in which the Canadian health care system can be improved and ensure its sustainability for the future.

The Canadian Food Inspection Agency (CFIA) ensures the safety of Canada's food supply, working from the farm gate to the consumer's plate to protect public health and safeguarding the plants and animals upon which safe and high-quality food depends. CFIA also enforces policies and standards, set by Health Canada, governing the safety and nutritional quality of all food sold in Canada.

CLEANING, SANITIZING & SAFETY

As an organic commercial cleaning solution the lotus® PRO system has been tested and recognized as effective by third parties, exceeding the Green Seal Environmental Standard (GS-37) for performance as an Industrial Cleaner. In controlled testing by the Toxics Use Reduction Institute (TURI), the aqueous ozone solution produced by lotus® PRO was more effective than a leading quat chemical cleaner, as well as a green cleaner at removing soil from bathroom surfaces such as glass and chrome. It was also proven as an effective cleaner on ceramic, steel, plastic and fiberglass surfaces.

The aqueous ozone solution produced by lotus® PRO is a broad range anti-microbial agent (See Appendix B) that works fast and effectively against pathogens, without fumes and toxic residues like dioxins and tri-chloramines. Because of its toxin-free sanitizing action, aqueous ozone is considered safe as a direct and indirect food additive by the US Food and Drug Administration (FDA) and United States Department of Agriculture (USDA) under its Organic Program. This naturally occurring substance is one of the strongest oxidizing agents known, second only to fluorine in its speed and effectiveness. Cleaning evaluation carried out by TURI. Sanitisation tests carried out by Mycoscience Inc.

Because it is chemical-free, vapor and residue-free, aqueous ozone is considered as extremely safe for people and planet. Its effectiveness as a cleaner, aqueous ozone scored a perfect 50 out of 50 TURI safety score, with zero levels for VOC emissions, zero global warming potential, zero ozone depletion potential and zero scores in all National Fire Prevention Association (NFPA) and Hazardous Material Identification System (HMIS) categories.

LOTUS® PRO IN FOOD SERVICE AREAS

The lotus® PRO is particularly effective in cleaning and sanitizing food contact surfaces. Unlike chemical sanitizers aqueous ozone can be used to clean and sanitize in the close presence of food without concerns of chemical contamination. Since aqueous ozone reverts to oxygen and water, food preparation surfaces do not require post-application rinsing to eliminate potentially harmful residues, nor do they require careful handling and preparation of chemical cleaning concentrates. [16]

LOTUS® PRO ANTI-MICROBIAL EFFICACY

A article published in the Association for Professionals in Infection Control and Epidemiology found that ozone gas was able to inactivate more than 99.9% of most bacteria including Acinetobacter baumannii, Clostridium difficile ("C.difficile") and methicillin-resistant Staphylococcus aureus ("MRSA") in both laboratory and field conditions. [17]

The study concluded that ozone gas is a valuable decontamination tool for the removal of bacteria in many institutions and communal settings including hospitals and other health care institutions. Ozone in the liquid phase is a significantly faster contact sanitizer than ozone gas, requiring much lower concentrations and shorter dwell times. For example 20.00ppm of ozone in air takes 20 minutes to sanitize a common pathogen. By contrast, 0.25ppm concentration of aqueous ozone requires only 96 seconds to achieve the same kill rate.

APPENDIX A:
CLEANING EVALUATION BY TURI

Toxics Use Reduction Institute
Surface Solutions Laboratory
University of Massachusetts Lowell
One University Avenue, Lowell, MA 01854-2866
(978)934-3133 or 3249 fax: (978)934-3050 or 4962
www.cleanersolutions.org

SSL CLEANING PRODUCT PERFORMANCE REVIEW

Performed for Triple S, 2 Executive Park Drive, Billerica, MA 01862

Vendor Name: Tersano — Date of Testing: 7/10-7/11/08
Product Name: Lotus Sanitizing System
Major Fields of Cleaning: ☐ Parts ☐ Precision ☒ Janitorial/Facility

Primary Cleaner Classification

☐ Acidic Aqueous	☐ Semi-Aqueous	☐ Powder detergent	☐ Extracting
☒ Neutral Aqueous	☐ Terpene	☐ Enzymatic/ Microbial	☐ HCFC
☐ Alkaline Aqueous	☐ Petroleum distillate	☐ Blasting	☐ Alcohol
☐ Caustic	☐ Organic	☐ Biobased	☐ Other: Oxygenated Water

Methods Used for Cleaning

☐ Cold Solvent	☐ Media Blasting	☐ Vapor Degreasing
☐ Immersion/Soak	☐ Spray Washer	☐ Other1:
☒ Manual Wipe	psi-range	☐ Other2:
☐ Mechanical Agitation	☐ Ultrasonic	☐ Other3:

Concentration used: 100 %
Temperature used: 68 F
Analysis used: Gravimetric

Contaminant Removal Performed at SSL[1]

☐ Adhesives	%	☐ Paints	%
☐ Buffing/polishing	%	☐ Resins Silicones	%
☐ Carbon deposits	%	☐ Rosins	%
☐ Coatings	%	☐ Rust/Scale	%
☐ Fluxes	%	☐ Oil -cutting/tapping or lubricants	%
☐ Greases	%	☒ Other1: All purpose soil mix	88.01 %
☐ Inks	%	☒ Other2: Bathroom Soap Scum	92.31 %
☐ Mold releases	%	☒ Other3: Glass Soap Scum	90.46 %

Laboratory Safety Screening Score for Important Physical/Chemical Properties[2]

VOC (g/l):	0	NFPA rating: H	0	F	0	R 0
Global Warming Potential:	0	HMIS rating: H		F		R
Ozone Depletion Potential:	0	pH:	7.0			

Safety Screening Score: 50 — The higher the score, up to 50, implies a potentially safer product

[1] SSL uses a modified version of the ASTM standard G122 to determine product performance. Effectiveness is determined using the gravimetric analysis of portion of the standard. The lab considers the removal of 85% or more on average of the soil from three coupons to be effective. However, in some cases lower or higher values may be acceptable depending upon the end goal of the cleaning process.

[2] SSL has developed a screening methodology to help in the selection of safer cleaning products. It is important to conduct a full EH&S assessment of any product prior to adoption. Contact SSL to find out how to have an EH&S evaluation completed.

APPENDIX B:
PATHOGENS KILLED BY AQUEOUS OZONE

With regulatory approvals and widespread use of ozone as a sanitizer and disinfectant, thousands of studies and research papers have been completed regarding pathogen kill rates. These rates vary depending of the type of organism, dissolved ozone concentration, dwell time, and temperature. Below is a partial list of common pathogens killed by aqueous ozone compiled from publicly available academic, medical, scientific and ozone industry sources, as well as third party tests:

Bacteria:
Achromobacter butyric
Aeromonas spp.
Aeromonas salmonicida
Aeromonas hydrophila
Bacillus spp.:
B. anthracis
B. cereus
B. coagulans
B. globigi
B. licheniformis
B. megatherium
B. paratyphosus
B. prodigiosus
B. subtilis
B. stearothermophilus
Clostridium spp.
C. botulinum
C. difficle
C. sporogenes
C. tetani (Tetanus)
Cryptosporidium spp.
Corynebacterium diphtheriae
Eberthella typhosa
Endamoeba histolytica
E. coli
Flavobacterium spp.
Leptospira canicola
Listeria spp.
Micrococcus spp.
M. candidus
M. spharaeroides
Macrococcus caseolyticus
Mycobacterium spp.
M. leprae
M. tuberculosis
Neisseria catarrhalis
Phytomonas tumefaciens
Proteus vulgaris
Pseudomonas spp.
P. aeruginosa
P. putida
Salmonella spp.
S. choleraesuis
S. enteritidis
S. typhimurium
S. typhosa
S. paratyphi
Sarcina lutea
Serratia marcescens
Shigella spp.
S. dysenteriae
S. flexnaria
S. paradysenteriae
Spirillum rubrum
Staphylococcus spp.
S. albus
S. aureus (incl.MRSA)
Streptococcus spp.
S. faecalis
S. hemolyticus
S. lactis
S. salivarius
S. viridans
Torula rubra
Vibrio spp.
V. alginolyticus
V. anguillarum
V. cholerae
V. comma

Fungus & Molds:
Aspergillus spp.
A. candidus
A. flavus (produces aflatoxin)
A. glaucus
A. niger
A. terreus
A. saitoi
A. oryzae
Botrytis allii
Colletotrichum lagenarium
Fusarium oxysporum
Geotrichum spp.
Mucor piriformis
Oospora lactis
Penicillium spp.
P. cyclopium
P. chrysogenum
P. citrinum
P. digitatum
P. glaucum
P. expansum
P. egyptiacum
P. roqueforti
Rhizopus spp.
R. nigricans
R. stolonifer
Rhizoctonia solani
Rhizopus stolonifera

Protozoa:
Paramecium
Nematode eggs
Chlorella vulgaris
Alternaria solani
Fusarium oxysporum
Monilinia spp.
M. fructicola
M. laxa
Pythium ultimum
Phytophthora spp.
P. erythroseptica
P. parasitica
Sclerotium rolfsii
Saccharomyces spp.
S. cerevisiae
S. ellipsoideus
Cryptosporidium parvum
Giardia spp.
G. lamblia
G. muris
Chlorella vulgaris
Trichoderma viride
Verticillium spp.
V. albo atrum
V. dahliae

Viruses:
Adenovirus
Coxsackieviruses (A9, B3, & B5)
Echoviruses (1, 5, 12, & 29)
Encephalomyocarditis virus
Hepatitis A virus
GD V11 Virus
Influenza viruses
Legionella pneumophila
Norovirus
Polio virus (Poliomyelitus)
Rotavirus
Vesicular Stomatitis virus

For more detailed information regarding specific pathogens, kill rates and dwell times, please contact us.

APPENDIX C:
HIGH CAPACITY UNIT: SPECIFICATIONS

The lotus® PRO High Capacity Unit turns ordinary tap water into aqueous ozone - a powerful natural cleaner, stain remover, deodorizer and sanitizer. The aqueous ozone is made on-the-spot with continuous flow for mop buckets, carpet extractors and auto scrubbers - killing germs while cleaning. It provides residue-free performance for a longer lasting clean and low slippage on even the smoothest floors. Safe on natural wood and stone. Floors stay cleaner, longer with no stripping.

STABILIZATION MODULE

Get hours of cleaning power with the Stabilization Module.

Turns ordinary tap water into a long-lasting, natural cleaner and sanitizer using patented Aqueous Ozone technology that keeps more ozone in solution for longer periods.

TECHNICAL SPECIFICATIONS	REGULATORY INFORMATION
Dimensions: 17.5" x 14.5" x 7"	EPA Site Registration No.: 89093-CAN-001
Weight: 18 lbs.	TURI Ratings: Safety screening score: 50 out of 50.
Flow: Continuous -10 min. shut off safety feature	CSA & UL: USA and Canada compliant
Rate: Up to 5 gals/min	Green Standard: Exceeds Green Seal GS-37
Sanitizing Duration: Up to 4 hours (LQFC425K)	FDA Safe Designation: 21CFR184.1563
Cartridge Life: 1,600 gals (LQFC425K)	USDA: Organic Program designation
Sanitizing Duration: Up to 24 hours (LQFC825K)	EPA: DIS/TSS-4 sanitizer (food contact surface)
Cartridge Life: 800 gals (LQFC825K)	OSHA Safety Compliance: Off-gas O3 < .01 ppm PEL
Power: Standard 110v (Power consumption about 90 watts)	Built-in mechanical backflow prevention

Tested to meet or exceed UL and CSA standards. EPA, FDA, TURI, USDA and OSHA compliant. Exceeds GS - 37 standard.

Items may not appear exactly as shown

REFERENCES

**Results may vary based on water quality at location.*

1. Findlay, D: "In Business", pages 5-7. Cornerstone Publications Inc., 2007

2. Crossley, E: "Business Niagara", pages 33-35. Osprey Media LP, 2007

3. Goldenshine.com, Golden Shine Cleaning Agency, House Cleaning Facts [Infographic], Posted on June 13th 2011
   http://eetd.lbl.gov/le/viaq/v_voc_1.htlm
   http://www.bls.gov/news.release/atus.nr0.htm
   http://www.epa.gov/reg5rcra/wptdlv/p2pages/hhw.pdf
   http://www.epa.gov/iaq/pubs/insidestory.html#look5
   http://cleaninginstitute.org/happiness_is_shiny_floors_and_tidy_toliets

4. EcoMom, How Many Toxins Are Hiding in Your Home? (Infographic)
   householdproducts.nlm.nih.gov
   toxicnet.nlm.nih.gov
   aapcc.org
   sharingguide.com
   expertclick.com
   mamashealthsite.com
   thedetoxspecialist.com
   naturalnews.com
   environmentalhealthnews.com
   deqstate.or.us
   actionagainstpoisoning.com

5. Ozone chemistry in aqueous solution - Ozone decomposition and stabilization; Margareta Eriksson Department of Chemistry; Royal Institute of Technology Stockholm, Sweden, 2005. Also lab testing with tap water only: ≥ 0.5 ppm O3 in solution at 15 minutes after full change completion; with Booster Pack and tap water ≥ 0.3 ppm 45 minutes after charge.

6. Results are based on internal testing. Local testing would need to be done at the time of installation.

7. Toxics Use Reduction Institute (TURI). University of Massachusetts Lowell, Surface Solutions Laboratory (SSL) ATSM standard G122 modified gravimetric analysis.

8. EPA DIS/TSS - 10 Sanitizer Test for inanimate non-food contact surfaces - Efficacy Data Requirements. Supplemental Efficacy. Prepared by Registration Division of Pesticide Programs - 1976.

9. EPA DIS/TSS - 4 Sanitizer Test for previously cleaned food contact surfaces - Efficacy Data Requirements. Supplemental Efficacy. Prepared by Registration Division of Pesticide Programs - 1979.

10. See http://www.cleanersolutions.org/?action=product_info&product_id=803 TURI Cleaning Solutions Database Laboratory Evaluation

11. See http://www.purfresh.com/cust_list.htm. Aqueous ozone crop applications, food wash systems and cold chain technologies.

12. University of Tennessee/EcoForm Sustainability Study; Center for Clean Products Knoxville - 2009.

13. Electric Power Research Institute (EPRI) Generally Recognized as Safe (GRAS) declaration for ozone use in food processing in the U.S. expert panel May 1997. Food and Drug Administration Code of Federal Regulations, Title 21, Volume 3, Revised as of April 1, 2008 [CITE: 21CFR184.1563]

14. "National Organic Program (NOP), Sunset Review (2008)" Organization: National Organic Program of the USDA Agricultural Marketing Service 2008 USDA AMS Final Rule. The Organic Foods Production Act (OFPA), 7 U.S.C. 6501 et seq.

15. Occupational Health and Safety Act; (OHSA) Permissible Exposure Limits (PEL) '8' hour - 8 hour per day/5 days per week (occupational exposure limit) - 0.1 ppm '15 minute (Short Term exposure Limit) - 0.3 ppm. gaseous. Canadian Standards Association (CSA) US Certificate: 1595550 2006/03/07. Toxics Use Reduction Institute (TURI). University of Massachusetts Lowell NFPA RATING: Zero Heath Risk rating.

16. Electric Power Research Institute EPRI Study # CR-106435 ref. Studies on the Use of Ozone in Food & Agriculture; Proceedings of the International Ozone Association 2002 Pan American Group Production Agriculture and Food Processing.

17. Ozone gas is an effective and practical antibacterial agent. M Sharma and JB Hudson ; October 2008. AJIC

- APPLIED EPIDEMIOLOGY IN HEALTH CARE SETTINGS AND THE COMMUNITY: Volume 36 No.8.

CONTACTS

Steve Hengsperger
President
steveh@tersano.com
519-567-7535

Brad Lucas
North America Sales Representative
bradl@tersano.com
760-729-1651

David Yli-Juuti
Europe Sales Representative
davidy@tersano.com
+44(0)7825 338 533

Written by Tersano Inc.
www.tersano.com
1.800.808.1723