



eClear®

RoHS CE

on Oxygen

Healthy Water. Healthy Earth. Healthy You.

ECO-FUSION™ DRINKING WATER SYSTEMS

Patented Technology (2003/2934)



Healthy Water. Healthy Earth. Healthy You.

ECO-FUSION™ ONE-TAP DRINKING WATER SYSTEM

**ECLEAR® ONE-TAP™
UNDERCOUNTER ULTRAVIOLET
DRINKING WATER SYSTEM**



**SUPER LONG LIFE UV LAMP AND FILTERS
SUPER COMPACT, SIMPLE DESIGN**

1. 10" BIG BLUE FILTER HOUSING

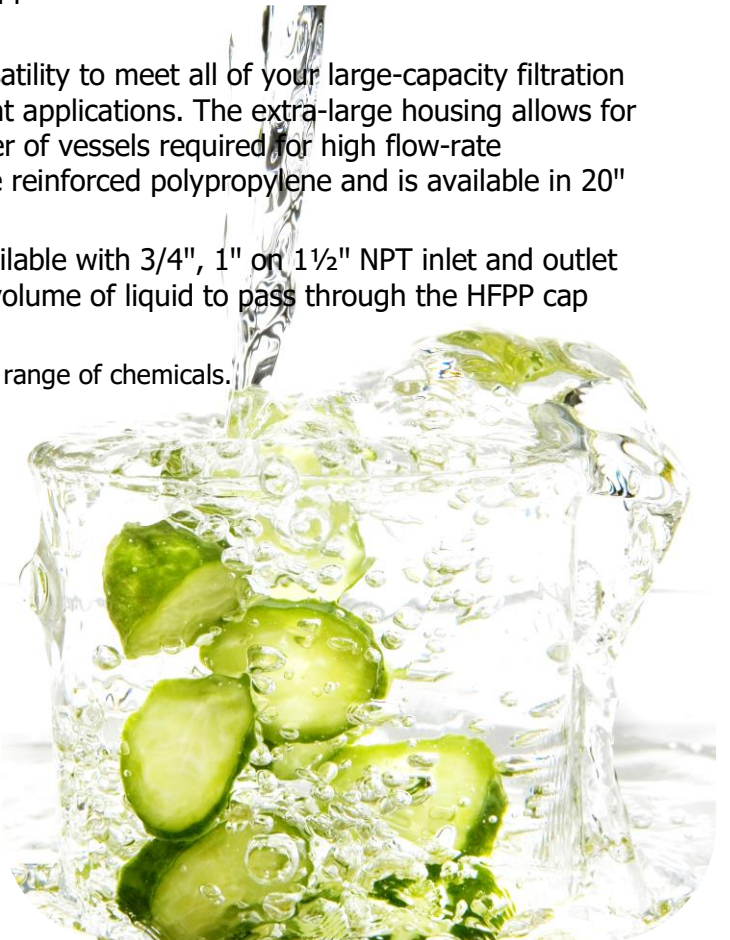
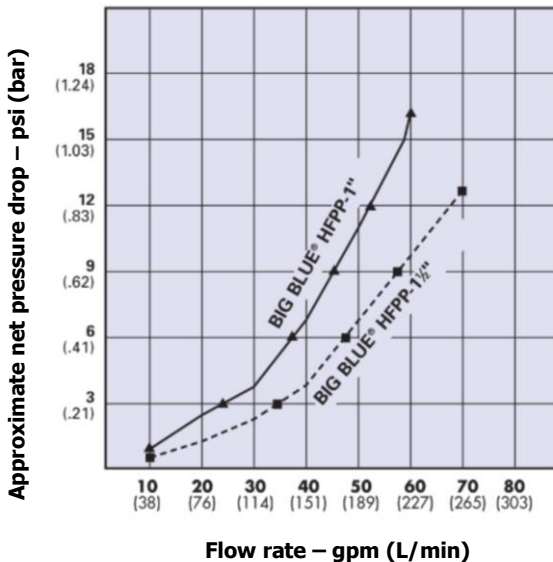
Large capacity housing suitable for high flow applications.

Accepts 4 1/2 diameter cartridges.

Big blue housing® filter housings offer the versatility to meet all of your large-capacity filtration needs, including high-flow and heavy- sediment applications. The extra-large housing allows for greater cartridge capacity, reducing the number of vessels required for high flow-rate applications. Sumps are constructed of durable reinforced polypropylene and is available in 20" lengths.

The high-flow polypropylene (HFPP) cap is available with 3/4", 1" or 1 1/2" NPT inlet and outlet ports. The 1 1/4 "internal port allows a greater volume of liquid to pass through the HFPP cap more rapidly.

Big blue housings are compatible with a broad range of chemicals.





Healthy Water. Healthy Earth. Healthy You.

HOUSING SPECIFICATIONS AND PERFORMANCE DATA

MODEL	MAXIMUM DIMENSIONS	INITIAL AP (PSI) @ FLOW RATE (GPM)
10" BB-1"	13-1/8" x 7-1/4" (333 mm x 184 mm)	1 psi @ 15 gpm (0.1 bar @ 57 l/min)

MATERIALS OF CONSTRUCTION

HOUSING	Polypropylene	O-RING	Bana-N
CAP	Polypropylene (HFPP)	MAXIMUM TEMPERATURE	100°F (37.8°C)
BUTTON ASSEMBLY	300 series stainless steel, EPDM and polypropylene	MAXIMUM PRESSURE	#10 BB – 100 PSI (6.9 BAR)

2. MELTBLOWN 5 MICRON PRE-FILTER

HAD Series-High Performance and absolutely depth Melt Blown Filter

The had series-high performance and absolutely depth filter is manufactured using no glue, this product shows advantages on the gradient of rating providing more micron rating rates and a cartridge that is stronger than the general melt blown filters. This makes micron rating more accurate.



SPECIFICATIONS

DIMENTIONS	MATERIAL OF CONSTRUCTION	PERFORMANCE
Outside diameter: 4.5" (115mm) Inner diameter: 1.2" (30mm) Length: 10" (254mm)	Filter media: Polypropylene (pp) End caps: Polypropylene (pp) Cores: Polypropylene (pp) Gasket/O-ring: Silicon, EPDM, NBR, VITON	Removal rating: 5µm Max operating temperature: 180°F (82°C)



3. 10" BIG BLUE CARBON BLOCK FILTERS

Our activated carbon filter cartridges are formed using extruding carbon fibers and food-grade binders. This makes it FDA approved for the food/beverage industry. It also ensures that no bad taste is left behind. This filter is also great for filtering organic matter effectively.

SPECIFICATIONS

DIMENSIONS	MATERIAL OF CONSTRUCTION	PERFORMANCE
Outside diameter: 4.5" (115mm) Inner diameter: 1.2" (30mm) Length: 10" (508mm)	Filter media: Acid washed bituminous GAC & water washed coconut shell GAC End caps material: Polypropylene Gasket: Silicone, EPDM, NBR Netting: Polypropylene	Removal rating: 5µm Max differential pressure: 7 bar @ 68°F (20°C) Max operating temperature: 125°F (52°C)

4. UV T5 16W HIGH OUTPUT UVC WITH QUARTZ SLEEVE

TUV TL Mini are slim double-ended UVC (germicidal) lamps used in residential water and air disinfection units. The small 16mm diameter of the lamp allows for small system design and design flexibility. TUV TL mini lamps offer almost constant UV output over their complete lifetime, for maximum security of disinfection and high system efficacy.

PRODUCT DATA GENERAL INFORMATION

Cap-Base	4pinssingleended (4 pins single ended)
Bulb shape	t5 (t5)
Main application	disinfection
Useful life (nom)	900 h
System description	NA [-]
<u>LIGHT TECHNICAL</u>	
Color code	- [Not specified]
Color designation	- [Not specified]
Lumen depreciation at	- 15%
Useful lifetime	
<u>OPERATING AND ELECTRICAL</u>	
Power (rated) (nom)	15 w
Lamp current (nom)	0.4 a
Voltage (Nom)	86 V
Mechanical and Housing	

Cap-Base Information	4 pins single ended
----------------------	---------------------

UV

UV-C radiation	4.0 W
----------------	-------

PRODUCT DATA

Full product code	871150064385899
Order product name	TUV 16W 4P SE UNP/32
EAN/UPC – product	8711500643858
Order code	385419
Numerator – quantity per pack	1
Numerator – packs per outer box	32
Material Nr. (12nc)	927971404099
Net weight (piece)	36.000 g

ECO-FUSION™ WHOLE HOUSE DRINKING WATER SYSTEMS

FOR: NORMAL WATER

A.



FOR: HIGH IRON/ BOREHOLE WATER

B.



FOR: HARD WATER/ LIMESCALE

C.





Healthy Water. Healthy Earth. Healthy You.

CAN YOU TRUST ECLEAR™?

eClear technologies has been making eClear™ systems for over 20 years. We export to around 30 countries worldwide, with more than 25 000 installations.

eClear's natural oxygenator (O₂) technology delivers over 40,000g oxidation/hr making it the most powerful water treatment system currently available. Unlike chlorine systems, eClear generates no harmful chloramine gas or toxic disinfection by products (DBPs).

Using an advanced electrolysis process the eClear oxygenator technology generates powerful natural oxidizers, hydroxyl (OH), atomic oxygen (O₁), hydrogen peroxide (H₂O₂) and oxygen (O₂) from the water molecules itself.

The powerful oxidizers, OH, O₁ and H₂O₂ combined with O₂ and copper, effectively inactivates algae, viruses, bacteria, yeast, fungi and protozoa.

ECO-FUSION™ DRINKING WATER SYSTEMS TECHNICAL SPECIFICATIONS

SHUT OFF VALVES:	Enables shut down of mains water for easy cartridge replacement and maintenance of system.
ULTRAVIOLET CHAMBER:	Extended chamber for longer contact time to water. Removes 99.9% of all waterborne parasites and diseases-including the deactivation of cryptosporidium. Special long life high Spekthrotherm germicidal UV lamps. 5000hrs.
ELECTRONIC MANAGEMENT UNIT:	Microprocessor technology with integrated digital display. Auto boost for increased current dosing of oxygen/ionization electrodes. Electronic UV lamp ignition and "lamp failure indicator. Digital display indicators for dosing output of oxygen/ionization. Fully programmable SECAM system.
FLOW SENSOR:	Fully integrated flow sensor on/off management of system. Activates entire system when tap is turned on. Deactivates system when tap is turned off thus reducing electrical consumption and extending uv lamp life and electrodes. Fully programmable for high demand water-usage.
FLOW RATE:	Approx. 4000 liters per hour.
ELECTRICAL:	1: amp draw/@ 230-240volts/50hz = 1 amp 2: volts 220-240v single phase operation
INSTALLATION SIZE + WEIGHT	1.6metres x 1metre. 37kgs Total volume when packed 150cm x 70cm x 60cm

1. 20" BIG BLUE HIGH FLOW FILTER HOUSING

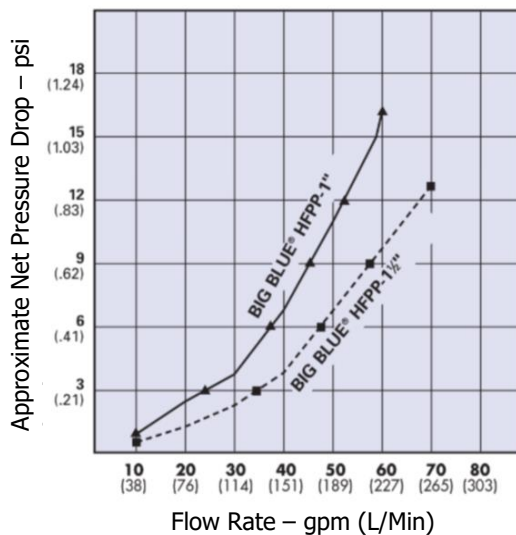
Large capacity housing suitable for high flow applications. Accepts 4 1/2" diameter cartridges.

Big blue housing® filter housings offer the versatility to meet all of your large-capacity filtration needs, including high-flow and heavy-sediment applications. The extra-large housing allows for greater cartridge capacity, reducing the number of vessels required for high flow-rate applications. Sumps are constructed of durable reinforced polypropylene and is available in 20" lengths.

the high-flow polypropylene (HFPP) cap is available with 1 1/2" NPT

inlet and outlet ports. The 1 1/4" internal port allows a greater volume of liquid to pass through the HFPP cap more rapidly.

big blue housings are compatible with a broad range of chemicals.



HOUSING SPECIFICATIONS AND PERFORMANCE DATA

MODEL	MAXIMUM DIMENSIONS	INITIAL AP (PSI) @ FLOW RATE (GPM)
20"BB-1 – 1/2"	23 – 7/8" x 7 – 1/4" (606 mm x 184 mm)	1 psi @ 20 gpm (0.1 bar @ 76 L/min)

MATERIALS OF CONSTRUCTION

HOUSING	Polypropylene	O-RING	Bana-N
CAP	Polypropylene (HFPP)	MAXIMUM TEMPERATURE	100°F (37.8°C)
BUTTON ASSEMBLY	300 series Stainless steel, EPDM and Polypropylene	MAXIMUM PRESSURE	#20 BB – 90 psi (6.2 bar)

2. MELTBLOWN 5 MICRON PRE-FILTER

Had Series-High Performance And Absolutely Depth Melt Blown Filter

The had series-high performance and absolutely depth filter is manufactured using no glue, this product shows advantages on the gradient of rating providing more micron rating rates and a cartridge that is stronger than the general melt blown filters. This makes micron rating more accurate.



SPECIFICATIONS

DIMENSIONS	MATERIAL OF CONSTRUCTION	PERFORMANCE
Outside diameter: 4.5" (115mm) Inner diameter: 1.2" (30mm) Length: 20" (508mm)	Filter media: Polypropylene (pp) End caps: Polypropylene (pp) Cores: Polypropylene (pp) Gasket/O-ring: Silicon, EPDM, NBR, VITON	Removal rating: 5µm Max operating temperature: 180°F (82°C)

3. 20" BIG BLUE CARBON BLOCK FILTERS

Our activated carbon filter cartridges are formed using extruding carbon fibers and food-grade binders. This makes it FDA approved for the food/beverage industry. It also ensures that no bad taste is left behind. This filter is also great for filtering organic matter effectively.



SPECIFICATIONS

DIMENSIONS	MATERIAL OF CONSTRUCTION	PERFORMANCE
Outside diameter: 4.5" (115mm) Inner diameter: 1.2" (30mm) Length: 20" (508mm)	Filter media: Acid washed bituminous GAC & water washed coconut shell GAC End caps material: Polypropylene Gasket: Silicone, EPDM, NBR Netting: Polypropylene	Removal rating: 5µm Max differential pressure: 7 bar @ 68°F (20°C) Max operating temperature: 125°F (52°C)

4. **KDF FILTERS**

KDF process media, however, improve water treatment performance by protecting, and in some cases replacing, existing filtration/purification technologies. The exceptional filtration/purification performance and versatility of KDF media make them an economical and easy-to-use water treatment technology in both new systems and retrofit applications.

Improve your system's economy while improving performance.

When used alone, KDF media can remove more than 95% of chlorine, iron, heavy metal, and other contaminants from water.

When used in combination with granular activated carbon (GAC), KDF media can significantly extend the life of the carbon.

Compared to other water treatment technologies, KDF process media offer reduced materials requirements resulting in more compact and more economical systems.

Because KDF process media contains no chemical additives and are 100% recyclable, costly disposal requirements are eliminated. What's more, KDF process media are safer for the environment.

KDF process media are high-purity, copper-zinc formulations that reduce contaminants in water using an oxidant/reduction (redox) reaction.

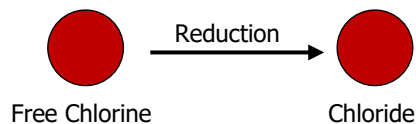
In other words, KDF media exchange electrons with contaminants, changing them into harmless components. For example, chlorine is changed into soluble, soluble ferrous cations are changed into insoluble ferric hydroxide, and hydrogen sulfide is changed into insoluble copper sulfide.

Other heavy metals such as mercury, copper and nickel are removed simply by bonding o the KDF media. Microorganisms, however, are controlled two ways:

1. The exchange of electrons in the redox reaction creates an electrolytic field that most microorganisms can't survive.
2. KDF process media may catalyze the formation of radicals and peroxides in certain circumstance. The radicals can interfere with microorganisms' ability to function.



TYPICAL REDOX REACTIONS



Harmful chlorine is removed by changing free chlorine into chloride



Healthy Water. Healthy Earth. Healthy You.

KDF PROCESS MEDIA PRODUCT SPECIFICATIONS

Medium composition	Atomized high purity copper/zinc alloy
Color	Golden (55), reddish brown (85)
Physical form	Granular
Screen size (U.S mesh)	-10 +100
Particle size range	0.149mm – 2.00mm
Apparent density	2.2 – 2.9 g/cc (171 lbs./cu.ft.)
Turbidity	<20 ntu
Skid	48 – 1/3 cu.ft. Drums (2,736 lbs.)
Odor and taste	None
Recommended Operating Conditions (use 3 – cycle valve):	
Service flow	15 gpm/sq. Ft
Backwash for 10 min @	30 gpm/sq. Ft
Purge/ rinse for 30 min. @	Maximum
Bed expansion, backwash	10 – 15 %
Free board	20 %
Minimum bed depth (6" dia.)	10 inch
Ph range: drinking water	6.5 – 8.5

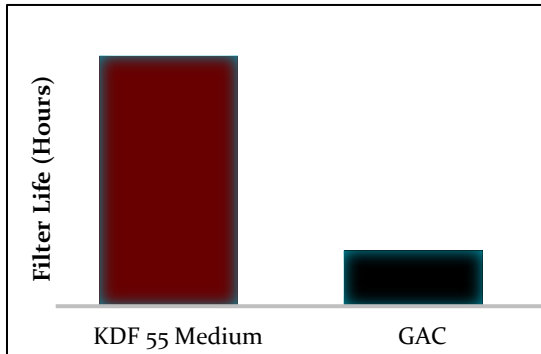


4.1. **KDF 55**

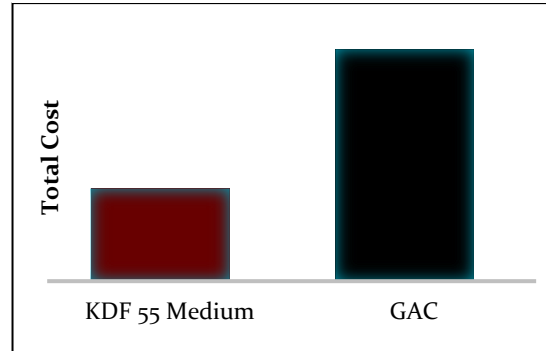
KDF 55 granules are designed for removing or reducing chlorine and soluble heavy metals. They are also used for controlling scale, bacteria and algae.



KDF 55 medium delivers 10 times greater filter life than GAC



Water treatment costs with KDF 55 medium are less than half that of GAC



4.2. **KDF 85**

KDF 85 granules are used to remove or reduce iron and hydrogen sulphide from water supplies. They are also used for controlling scale, bacteria and algae.

Iron removal

Iron (FE^{+2}) or ferrous iron in groundwater can impart objectionable taste and colour to potable water and can severely stain household fixtures. KDF process media remove iron from water, either alone or in combination with other treatment technologies used at the point of entry.

One-third as much KDF 85 medium provides three times the effective flow rate of other filter media in iron removal service.





5. SILIPHOS FILTER

Protects water systems in hotels, public buildings, private households and industry against scale formation and corrosion. Prevents “brown” water and clogged pipes. Save energy and money. Extends the life of water installations.

Siliphos is a glassy polyphosphate containing silicate. The application is done by dispensers of variable size. They require no electric installation and hardly any maintenance. They only have to be refilled with spheres as consumed. Refiling is very easy.

What can SILIPHOS do for you?

Mostly natural waters cause damage in pipes, boilers and other installations. Some contain dissolved minerals, mainly calcium and magnesium salts. These types of water are called HARD.

HARD WATER forms scale and corrosion in water systems. This leads to disadvantages and higher energy demand. Clogged pipes may have to be replaced. Heating coils may overheat and fail.

SOFT WATER is aggressive on metals and causes corrosion. Consequently, the tap water turns brown. Leaks and burst pipes may be the result.

SILIPHOS prevents scale and stops corrosion. It utilizes the phenomenon that very low concentrations of polyphosphates are sufficient to inhibit the disposition of scale onto metallic surfaces. Because of its phosphate and silicate content SILIPHOS also inhibits corrosion by forming a thin protective layer on the metal surface. A SILIPHOS concentration of 2 – 3 ppm is sufficient to achieve both of these effects.

SILIPHOS will also slowly remove existing scale in old pipes, even iron oxide and CaCO_3 layers to some extent.

SILIPHOS consists of 100% active substance. The use in tap water and other types of fresh water at the prescribed dosage is inoffensive. The recommended dosages are within the limits of the German drinking water regulations (TrinkwV dated 21/05/2001)

The purity of SILIPHOS and SILIPHOS II for treatment of portable water is in accordance with the existing Ec-Standard (EN 1208) as well as the requirements of the ‘FAO/WHO Expert committee on food additives’ (7th and 19th report). SILIPHOS ii is also NSF listed since 1991 as “drinking water treatment chemicals”

SILIPHOS SPHERES

A sparingly soluble glass – like polyphosphate – silicate combination of highest purity. SILIPHOS dispensers should be refilled when 1/3 of the content is used up, normally only after approximately 3-6 months. This depends on the individual installation.

6. **55 WATT UVC HIGH SPECTROTHERM LAMP**

TUV t8 lamps are double-ended UVC (germicidal) lamps used in professional water and air disinfection units. TUV t8 lamps offer almost constant UV output over their complete lifetime, for maximum security of disinfection and high system efficacy. Moreover, they have a long and reliable lifetime, which allows maintenance to be planned for in advance.



PRODUCT DATA

<u>GENERAL INFORMATION</u>	<u>APPROVAL AND APPLICATION</u>
Cap-Base G13 (medium bi-pin fluorescent)	Mercury (Hg) Content (Nom) 1.0 mg
Main application Disinfection	<u>UV</u>
Useful life (Nom) 9000 h	UV-C radiation 17.5 W
System description high output (HO)	<u>PRODUCT DATA</u>
<u>LIGHT TECHNICAL</u>	Full product code 871150061866510
Color designation - [not specified]	Order product name TUV 55w ho 1sl/6
Lumen depreciation at 10% Useful lifetime	EAN/UPC – product 8711500618665
<u>OPERATING AND ELECTRICAL</u>	Order code 928049504003
Power (rated) (nom) 54 w	Numerator – Quantity Per pack 1
Lamp current (nom) 0.77 a	Numerator – packs Per outer box 6
Voltage (nom) 86 v	Material nr. (12nc) 928049504003
UV IRRADIANCE 80MJ/CM2	Net weight (piece) 131.000 g



eClear[®]
on Oxygen

Healthy Water. Healthy Earth. Healthy You.

7. E-CLEAR™ HIGH OUTPUT OXYGEN & COPPER IONIZATION CHAMBER

The e-Clear System in Action



3 SEPERATE PROCESSES SANITIZING AND PURIFYING THE WATER MOLECULE

3 NATURAL, ORGANIC, CHEMICAL FREE PROCESSES



PROCESS 1

E-CLEAR PATENTED Electronic Oxidation Process



AOP

OH-

HYDROXYL IONS
are a very powerful, yet unstable oxidiser. Far more powerful than chlorine or ozone it converts back to water quickly leaving no residual effect

O-

ATOMIC OXYGEN
is an oxidiser far more powerful than chlorine or ozone. It quickly reverts back to water, leaving no residual effect

H2O2

HYDROGEN PEROXIDE
A very powerful oxidizer that reverts back to water readily. Leaving little residual effect.

O2

MOLECULAR OXYGEN
a very stable oxidiser producing high ORP in water. A high Oxygen residual is maintained in the water, disinfecting and super-oxygenating the water

Resulting in CLEAR, CLEAN, OXYGEN-RICH water

PROCESS 2

NASA PATENTED Copper Ionization



Cu²⁺

DEVELOPED BY NASA
for water sanitation. It is the most effective bactericide, fungicide and algacide. A residual of 0.5ppm is maintained, far below the 2ppm maximum level stipulated by the EC98/83 Directive for human consumption.

BENEFITS
Essential trace element found in all human tissue. Essential for healthy skin, hair, bones and metabolism. Prevents reproduction in bacteria, protozoa, algae, fungi. Leaves a residual in the water to continually kill microorganisms.

Water 99% free of harmful living matter

PROCESS 3

UNIVERSALLY APPROVED Ultraviolet



BENEFITS

Approved by the U.S. FDA
Chemical free disinfection
Quick, reliable and cost effective
Uv energy attacks the genetic core of the microorganism and rearranges the RNA/DNA eliminating the microorganisms ability to function and reproduce.
Destroys 99.99% of harmful microorganisms.
More effective than chlorine.
Helps break down oils and fats in the water.
Destroys chloramines.

CHEMICAL FREE, 99.99% effective at killing Microorganisms

SCIENCE EXPLANTION



eClear

on Oxygen

**FOR PRICING INFORMATION, PLEASE
CONTACT**

eClear Technologies

Jason – 076 611 7803

jason@eclearsa.com

www.eclearsa.com