19 Enzyme Effluent Treatment Powder

Description
Aquamarine Enzyme Effluent Treatment Powder keeps tanks and pipes clean and odour free. It keeps the sewage plant fluid and operating at peak efficiency. A liquid solution needs to be made up for initial dose for treating effluent tanks.

Dose

Previously untreated tanks - containing more than 2.5 tonnes effluent

An initial dose of 1kg/tonne of effluent into a non-treated solid effluent tank is recommended. Add 1kg of the powder to 10 litres of warm fresh water (35°C). Leave for 10 minutes for the product to activate. Agitate the tank if possible. Add the liquid and then the balance of the powder required. If the effluent has become solidified or hard then it may take 2 - 3 weeks for a slurry to be achieved. When the tank is emptied ensure that at least 0.25 tonne of effluent is left in order that the enzyme treatment is not completely flushed away. Otherwise re-dosing is required as below.

Previously untreated tanks - empty

Dose at a point when the tank contains at least 0.25 tonnes effluent, this will allow the Enzyme Effluent Treatment Powder to achieve its optimum level of activity and efficiency. Dose 1kg Enzyme Effluent Treatment Powder into the tank pre-mixed with warm water 35°C which has been left for 10 minutes prior to dosing.

• Dosing may be easiest by using the nearest toilet to the proximity of the effluent tank.

Use Aquamarine Enzyme Toilet Cleaner (used conventionally) to keep the enzymes in the effluent tank active, to prevent further slug-dose requirements which can be costly.

Pack Size 10 kg

Bio-Vac Enzyme System Cleaner

**Description**
Aquamarine Bio-Vac is an advanced enzyme based product designed to keep systems clear in vacuum and sizeable toilet systems. The product is especially designed for ships where there are large numbers of crew or personnel for example cruise or military ships. This Product is designed specifically for eliminating the build-up of Uric Acid caused by urine stone and limestone which can cause total pipe blockage and is not removed by conventional enzyme cleaners. It will especially deal with unsightly stains and unpleasant and toxic odours.

Unlike a conventional phosphoric acid for scale treatment it will not cause a “sieve” leakage effect on old systems. Containing a naturally biodegradable surfactant package and a pleasant fragrance, it will work at the scale build-up which will eventually be released by natural flushing of the system over a long period (up to 18 months) The important key to the success of the product is to stop the new build-up of scale and uric acid from a clean system.

**Application**
The product is supplied in pre-dilute form ready-to-use. 10m (may be easily measured by using the bottle dispensing system) of product should be used daily per toilet. This gives a controlled dose, thus ensuring that adequate product is used for maximum protection and at the same time eliminates unnecessary use of the product.

- Bio-vac will gradually release enzymes, which will form a bio-film throughout the system degrading existing build-up and preventing the adhesion of new solids and scale.
- Bio-vac will work on the bowl and pipes of the system. It must be dosed regularly to achieve the required results. Enzymes cause a biological reaction and it is imperative that the system is kept biologically active by continuous dosing.
- Bio-Vac is designed to be used in conjunction with Aquamarine Enzyme Toilet Powder which is especially suitable for Hamworthy and other effluent plant.
- The powder is used specifically to deal with the effluent tank. A separate data sheet is available for this product.

1 Litre (packed 12 x 1Ltr)

AQUA-FLOC 1003A Effluent and Waste Treatment
Approved Marinol Product

Description
Aqua-Floc 1003A consists of synthetic high molecular weight; water-soluble polyelectrolytes used as flocculants in water and waste treatment applications. They are classified as anionic, cationic or non-ionic depending on their charge. Aqua-Floc 1003A varies in molecular weight and charge to best meet the industrial and marine applications at hand. Available in both liquid and powder form. Aqua-Floc 1003A is a primary inorganic coagulant and is used in clarification of turbid waters and the separation and precipitation of contaminants in effluent waters.

Aqua-Floc 1003A is based on Polymeric Aluminium salts, and is particularly suited to the separation of organic contaminants.

Specification
Physical state Colourless liquid
Specific Gravity 1.19-1.22@20ºC
Aluminium Oxide 9.5-10.5%
Chloride 10.0-12.0%

Advantages
Effective at very low dosages
Performs well over a wide pH range
Easy to feed as liquid
Dissolve rapidly
Non-corrosive and easy to handle
High activity
Do not require second product for pH adjustment

Dosage
This treatment dosage depends on many factors, such as the type and quantity of solids to be separated and the retention of settling time available. Generally, dosages of 0.5 to 50 p.p.m will be required, though the actual dosage required must be determined for each system.

Aqua-Floc 1003A solution should be pumped with a positive displacement pump into the system at a point where good mixing occurs. Addition of the polymer should be made as near as possible to the point where flocculation takes place. Avoid excessive turbulence after floc formation.

Handling
Although most Aquamarine Chemical products are considered non-toxic, care should be exercised when handling these products to avoid excessive skin and eye contact. If contact is made, flush with water. Please refer to the Material Safety Data Sheet for detailed handling and storage information.

Pack Size 25 Litre

Ref. No. G403 6850-99-997-0267
26 Enzyme Toilet Cleaner

Description
Aquamarine Enzyme Toilet Cleaner is a biologically active active enzyme formulation that contains scientifically blended strains of bacteria designed to clean toilets, showers, sinks and other waste collection and treatment areas including pipes. It eliminates unpleasant odours and kills bacteria by instigating a chain reaction, which digests 100% of the odour.

Uses
- Cleaning toilet bowls
- Cleaning drains, traps, pipes and lines of grease and slime blockages
- Sinks, wash bowls and urinals
- Shower outlets

Application
The product is dosed by applying to the sink, toilet, shower or receptacle, which needs to be cleaned or treated. Once an initial dose has been applied (several squirts) the dose should be repeated and used conventionally as required. It is supplied in one-litre bottles with directional nozzle for easy application.

Do not use conventional chlorine based toilet cleaners or bleaches as they will impair or destroy the effect of the bacteria both in the system and in the effluent tanks.

The enzymes will be effective in the pipe systems to eliminate biological fouling and smells. The enzymes will also act as a “top-up” to the enzyme powder in the effluent tanks which will speed up and maintain the enzyme digestion.

- FOR HOLDING TANK CLEANING AND MAINTENANCE THE AQUAMARINE ENZYME EFFLUENT POWDER SHOULD BE USED.
- FOR URIC ACID PROBLEMS USE BIO-VAC WHICH IS IDEAL IN VACUUM SYSTEMS.

Packed 12 x 1 litre bottles

Ref. No. J250 7930-99-517-5383
30 Aqua-Antifoam - Vacuum Toilets

Description/Uses/Benefits

- Aqua-Antifoam is for use with vacuum toilet systems where due to the nature of the system unwanted and excessive foam conditions are created.
- On most vacuum systems an antifoam injection-dosing unit is fitted. Where this is the case, then Aquamarine Aqua-Antifoam should be dosed at 0.1% but may need increasing according to the severity of the problem in some cases.
- The product needs to be dosed directly into the flow of the waste water and not directly onto the foam.
- The product may also be used manually by dosing directly into the system via the nearest toilet to the main system.
- Aquamarine is able to offer dosing solutions if your system does not already have a provision for dosing in place.
- Aqua-Antifoam is compatible with Bio-Vac, Enzyme Toilet Cleaner and Enzyme Toilet Powder.

Pack Size: Aqua Antifoam is packed in 25 litre polydrums.

Ref. No. J150 6850-99-939-1195
Boiling-Out Compound

BOILING OUT COMPOUND is a powder chemical product used to protect new metals in any type of boiler. It is primarily used for steel boilers when they are new or when a boiler has been re-tubed. It is recommended to use approximately 4-5kg per tonne. It should be added in solution to the boiler water and the temperature elevated to maximum for a minimum of 5 hours.

The boiler should then be drained and flushed and subsequently chemically dosed with the Aquamarine Liquid Boiler Water Treatment according to the product information supplied.

Pack Size 25kg
**75 Enzyme Grease Trap and Galley Waste Degrader GD20X**

**Enzyme System Cleaner**  
For fat and grease deposits in galley application.  
GD20X is an enzyme based product designed to keep drains and grease traps clear and free-running which might otherwise get gummed up.

It will digest fats, greases and organic waste materials by dosing from 200ml daily via critical outlet point at a time when the galley has the longest period when not in use thus allowing the enzymes to work for the maximum length of time.

**Enzymes produced by bacteria can initiate breakdown and degrade specific foods:**  
1. Lipase breaks down fat  
2. Protease breaks down proteins such as meat & cheese  
3. Amylase degrades starches such as potatoes & bread  
4. Cellulase breaks down plant fibre from vegetables

**Dose for Commercial kitchens**
- **INITIAL Seeding:** 1.5 litre per m3 of trap (directly into the trap)  
- **Maintenance:** with a dosing pump:

<table>
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<th>NUMBER OF MEALS PER DAY</th>
<th>Maintenance Dosage ml/day</th>
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**Directions of use for GD20X**
1. Pump the grease trap out  
2. Initial seeding: dose GD20X directly to the trap manhole  
3. Maintenance dose: for liquid treatment, place the dosing pump in the kitchen so as to feed the drain  
4. Set the timer so as to inject product 1-2 hours after the end of the working hours

**Benefits**
1. Proactive versus Reactive treatment - reduce grease before problems occur  
2. Odour control  
3. Reduction of pumping frequency (3-4 fold less)  
4. Reduction of back-ups and flooding  
5. Real degradation of grease rather than moving grease downstream  
6. Prevent blockages  
7. Safe for users and environment  
8. NON-HAZARDOUS  
9. 25 litre drum

Dosing equipment is available from Aquamarine Chemicals if required.  
Natural MSC Multi Surface Cleaner - 750 ml

Unique biologically active liquid formulation containing specialised bacterial strains and biodegradable chemical cleaners. Quickly and efficiently cleans hard surfaces and soft surfaces such as carpet and furnishings.

Triple Action!
1. Cleans
2. Gets rid of smells and odourises
3. Deep cleaning from biological action for removal of urine, food, milk, chocolate syrup, tomato sauce, general traffic marks, etc

Dosage/Cleaning Instructions:
Carpets and upholsters, drapes, laundry, to remove stains of food and other organic wastes: After taking away the solids, spray the carpet with Aqua MSC neat, use a wet sponge to brush, scrub and humidify the surface. Let it stand overnight, if possible, then vacuum. Repeat the operation if necessary.

For hard surfaces - spray and wipe!

a) Accommodation and general cleaning:
Use from 50 ml up to 500 ml to half a bucket of hand hot water, depending on the surface to clean and the deposition, for cleaning decks, showers, floors, sinks, tiled areas etc

To deodorise a large surface use the product as a normal carpet cleaner in carpet shampoo equipment diluted 1:10 with water. For odour control on these surfaces spray diluted 1:2 with hand hot water. Wait as long as possible and rinse.

b) For carpet machine:
To deodorise a large surface use the product as a normal carpet cleaner in carpet shampoo equipment diluted 1:10 with water. For odour control on these surfaces spray diluted 1:2 with hand hot water. Wait as long as possible and rinse

c) Pipe cleaning and deodorising:
A nightly squirt into galley and bathroom sinks will keep drain pipes clean and clear of organic residual wastes and overcome unpleasant drain odours.

Pack Size 750 ml (trigger spray bottle)
77 Power Flower

Brighten your day with a fresh invigorating shower! Keep your drains clear and free of toxic odours at the same time ..... NEW!! 3-in-1 action - it really does what it says!!

The unique action of Powerflower will remove hair blockages, eliminate bad odours and fill your shower with exciting fragrances. Active ingredients released with every shower will clean away hair, scum and slime from the shower outlet.

Easy to use:
Place the Powerflower in the bottom of the shower tray with the water soluble tablet in the water flow from the shower

The tablet will dissolve slowly over a period of 1 - 3 months depending on your frequency of showering. After 3 months the tablet will become ineffective and should be discarded

Replace the tablet with a Powerflower refill when it has dissolved away by lifting out the central cap, rinse away any residue and replace with a new tablet. Replace the cap and reposition in the base of the shower tray

Everytime you shower a small amount is dissolved which keeps the shower outlet in tip top condition

Powerflower is completely non hazardous to use.

Total Enzyme Drain Unblocker

For use where drains become suddenly blocked usually due to organic waste build up. This is designed for a fast acting solution without the use of traditional acid products.

How to Use
Take 1 litre and dilute it with 2 litres of warm water – leaving to stand for 10 minutes and then allowing to soak down the drain whether it be blocked or semi-blocked, it may take between 1 and 3 applications to work and clear the line. This product is totally safe and environmental and safe to use within the Effluent Plant.

Where to Use
Recommended for use in Galleys, scuppers, any effluent or waste pipe-work.

Supplied in 4 x 5 Litre per box

Product Ref
TEDU5 (4X5 LITRES)

Ref. No. J250-6850-99-737-5545
A new approach to reducing oil discharges/residues in marine bilges

Oil Bioremediation – stops toxic smells, gets rid of waste oil and grease in the bilge.

Saves money on disposal costs, changes waste oil and hydrocarbons into H2O and CO2! Each Aquamarine Bilge Buster® contains a blend of class I (Between Class 1 and 4, class 1 being the safest type) oil digesting bacteria. The pillow immediately absorbs any free oil within the surface water and is capable of absorbing up to 14 times its weight in oil - the equivalent to 9 litres. Over a 4 month period each standard size pillow has an estimated potential to change 18 kgs of oil into CO2 and water. Aquamarine Bilge Buster® floats on the surface absorbing and digesting oil, reducing discharges, BOD and COD. After use each pillow should be disposed of as hazardous waste since hydrocarbon deposits may still be present although the oil should be reduced to carbon Dioxide and water.

Benefits

- Complies with the European Standard EN 858 (European oily discharge limits) Will allow easy reclamation and disposal of the water allowing the clean water to be pumped back to sea
- Easily placed in the surface layer of a bilge to remove surface oil. Tie to any convenient fixing point
- Once in place, Aquamarine Bilge Buster® requires no maintenance other than periodic replacement approximately every 6 months
- Once the oil bacteria start growing, each pillow is capable of degrading in excess of 1.5 kg of oil per week • Non-toxic, contains no hazardous materials
- Supports function of natural bacterial flora to digest oil and grease
- Significantly reduces the volume of free oil in a Bilge
- Tough, resilient and very durable
- Pillow contents can be optimized to degrade contamination from specific sources of waste oil and hydrocarbon waste • Aquamarine Bilge Buster® is safe and requires no haz-chem labelling
- Special treatment repels water to give maximum oil absorption

To Use

- Use 1 Aquamarine Bilge Buster® per 2000 litre of bilge volume on average
- Replace Aquamarine Bilge Buster® unit every 4 to 6 months depending on the difficulty of the problem
- Prior to use, if on a ship, the separator should be emptied
Recommended Procedures
Aquamarine Bilge Buster® is suitable for use in all bilge areas or waste tanks receiving continuous run off of oily water. Place Aquamarine Bilge Buster® on the surface of the layer of oil to be treated and tie in place, allowing the pillow to break the surface layer. Replace as necessary to ensure continued natural bacterial action. Normal replacement interval is approx six months.

Storage & Handling
- Store in a cool dry place
- Avoid prolonged exposure to temperatures exceeding 40°C
- Avoid eye contact
- Wash hands thoroughly with warm soapy water after handling

Non Hazardous
Pack Size: 1 per pack


Additional uses: Protection from moth infestations, de-odourising of sewage tanks, can be used to de-dorising cargo tanks.

Bio-Card is the latest concept for germicidal sanitary unit products.

How does the Bio-Card work?
It is based on our patented, natural vapour technology and tested to ensure activity throughout the unit for the duration of a service.

The main active components are based on our unique blend of volatile, natural plant extracts such as cinnamon tree bark.

The first noticeable effect of the Bio-Card is the immediate fragrancing action which creates a pleasant cinnamon aroma in the surrounding area.

During this process the natural anti-microbial vapours permeate the whole unit and continue to be effective even when the unit is full.

The active carrier has been specifically developed to release the natural based germicide in a controlled manner to ensure total natural anti-microbial coverage throughout the duration of the service.

Bio-card specification
* Active throughout a sanitary unit for 4 weeks
* Unique testing regime to confirm product efficacy
* Tested in actual sanitary units
* Product testing demonstrates high level of efficacy against broad range of bacteria
* The active ingredient in Bio-Card is proven to be effective against Hep B, Hep C and HIV
* The active ingredient in Bio-Card is used as an effective fungicide and insecticide
* Highly effective odour control working through the unique vapour action
* Pleasant natural fragrance released to the surrounding area when unit is used
* Active ingredient made from unique plant extract formula
* Product carrier is made from totally biodegradable material
* Carrier sourced from a renewable resource
* Extremely effective in lined and unlined bins
* 1 Bio-Card per dose ensures cost effective accurate dosing
* Very easy to use little training for operators required
* Compact packaging reduces shipping costs
* Patented technology
* For use in closed/bin applications

Bio-Card vapour eradicates 99.999% of bacteria and remains effective throughout the life of the service.

Bio-Card - The natural anti microbial solution Bio-Card is a natural anti microbial product this means that it will eradicate bacteria that enter and grow in a sanitary unit or waste disposal bin or tank. Not recomended for use in food areas.
This method of control effectively protects operators and clients from any pathogenic bacteria and prevents any offensive odours developing at source.

**Why treat sanitary waste?**

Sanitary waste units and waste bins (particularly food) are a breeding ground for microorganisms, leading to the development of malodours in washrooms, galleys and waste storage areas.

Offensive odours in washrooms leads to a poor perception of service levels by visitors and staff.

The growth of potentially pathogenic microorganisms.

Protection of both operators and clients is a major priority if infections are to be avoided.

Many service companies use products which simply try to mask the malodour and offer no protection to their operators or clients.

The Bio-Card is foil packed so it cannot degrade.

**Biodegradability**

The Bio-Card carrier has been specifically selected for its low lignin content resulting in greater biodegradability over a shorter time frame. The entire bio-card will biodegrade when disposed of at the end of a service.

The Bio-Card is derived from sustainable materials that safeguard the protection of our environment.

The active ingredients derived from plant extracts combined with the natural carrier provides the user with a totally safe solution for treatment of sanitary and waste applications.

Packed in sealed pack of 200 units.

The Bio-Card will have a shelf life of approximately 12 months if the pack is unopened.
Bio-brick™ is a unique solid format product, combining a high bacterial count with slow release technology, to dose bacteria into waste water and effluent handling facilities.

Overview
Bio-brick™ provides a way of dosing high numbers of active waste degrading bacteria into grease trap applications without the need to install a pump or make electrical connections as with liquid products. Performance is improved over manual product dosing as there are no missed doses, and the release of bacteria is continuous rather than a small number of times per day as with a manual dose.

Bio-brick™ will gradually dissolve over a 30 to 90 day period depending on the application and the effluent flow. The naturally occurring bacteria contained in the Bio-brick™ will reduce odour, sludge, fats, oils and grease build-up.

Technical features of bio-brick™
- A highly effective product that is based on biological as opposed chemical action
- Very high bacteria specification for maximum effectiveness in this tough environment
- Specifically selected highly effective bacteria multi strain formula for Production of a wide range of enzymes for organic waste degradation, including lipase to cleave fats, cellulose for fibre and general solids, amylase for starch and protease and for proteins
- Product contains 100% spore form for:
  - Extended product life
  - Product stability
  - Maintenance of original product specification
- Unique slow release solid format
- Simple format will not require additional dosing systems e.g. pumps and electrical Installations
- Slow release technology facilitates continuous dosing throughout the life of the product
- One size enables a wide range of effluent volumes to be treated

Product size and dosing information
- 0.5 kg Bio-brick™ will treat effluent flows of between 1 to more than 100 cubic meters per day (m³/day)
- 1 kg Bio-brick™ will treat effluent flows of between 100 to more than 800 cubic meters per day (m³/day)
- 5 kg Bio-brick™ will treat effluent flows of between 725 to more than 4,000 cubic meters per day (m³/day)