## Aqua Gobbler™











Revolutionary proprietary bacterial additive for reticulated aquaculture treatment which creates a healthier environment, reduces diseases, reduced algae, adds sparkle to water and visually cleans ponds, lakes, ornamental fish farms, tropical, marine aquariums and fish tanks.

#### **Product Description:**

Beco-zyme Aqua Gobbler™ is a natural, safe and highly effective bio enzyme treatment for reticulated aquaculture environments which helps to add a beautiful sparkle to water and effectively cleans its target environment by enhancing the natural biological processes using a strain of proprietary enzyme producing bacteria in ponds, dams, marine and tropical aquariums.

#### **Current Global Challenges:**

Global aquaculture is challenged around the world by poor water quality and the regular outbreak of diseases caused by bad pathogens. Using beneficial enzyme producing bacteria as a biological treatment agent has massive advantages to address aquaculture challenges by improving water quality and reducing diseases caused by bad pathogenic bacteria.

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#### **Mode of Action:**

The enzyme producing bacteria in Beco-zyme Agua Gobbler™ are physiologically robust and formulated into a very stable commercial water treatment product which is easily tolerant to the harsh environmental conditions required in its application. Becozyme Aqua Gobbler™ uses the mode of competitive exclusion to kill off bad pathogens. What this means is that the good bacteria in Aqua Gobbler™ display an exponentially higher growth rate and compete with, win and digest the food that bad bacteria need to survive. Aqua Gobbler™ essentially starves bad pathogens of their food source and they eventually die off. Aqua Gobbler™ functions across a wide range of physiological conditions, including salinity, На and temperature. Optimum water temperatures significantly add to the performance Aqua Gobbler™ while relative fluctuations of water salinity and pH do not have a significant performance impact which adds greatly to its overall benefit and attractiveness in application.

#### **Product Features:**

- -Enhances water quality by reducing the concentration of C.O.D.'s ammonia, nitrite, nitrate and phosphates
- -Reduces solids and organic wastes
- -Pathogen inhibition action

- Reduces algae bloom proliferation
- Promotes healthy fish growth and lowers mortality and diseases
- Biological filter maturation

#### **Summary:**

Beco-zyme Aqua Gobbler™ will invaluably greatly contribute to a healthier and visually cleaner aquatic environment, in residential especially commercial environments where health, a high growth rate, high stocking density and greatly reduced diseases and low environmental pollution is required. Aqua Gobbler™ is essential for a rapidly growing, high-value industry, and the health and survival of countless fish species which is a critical requirement for the success of business and the preservation of our precious planet.

#### **Dosage & Directions:**

- -Beco-zyme Aqua Gobbler™ should be added directly to the reticulated water system once a week. The dosage can be safely increased up to five times for extreme potency based on water conditions.
- Turns blue once it is mixed in water and will clear after passing through the filter system.
- -1 gram treats 1000 litres of water.
- -Sufficient aeration and reticulation is essential.

#### Storage & Packaging:

Store in a dry, cool and dark place. Packed in 500g bags.







## Aussan Germ Gobbler™











A potent, revolutionary disinfecting agent for destroying Listeria, E-Coli, Salmonella, Pseudomonas, Staphylococcus and much more. Non toxic and non corrosive for controlling all microorganisms across a wide variety of industries.

**Mechanism of Action:** 

Disease and even death causing pathogens are an unfortunate reality in the food processing industry, and are difficult to manage with traditional disinfectants. The old conventional approach to controlling Listeria and Salmonella etc. is by poisoning them. As is widely documented, pathogens build up resistance to poisoning from traditional disinfectants and anti-biotics, making them harder to kill after every disinfection. So why is Germ Gobbler™ much more effective than traditional disinfectants? Germ Gobbler™ does not poison the organism, but rather acts mechanistically by destroying the cellular membrane of a microorganism (cell wall intrusion). This makes it impossible for the pathogen to build up resistance, meaning you get an excellent kill rate every time. Aussan Germ Gobbler™'s efficacy is due to the unique blend of bioflavanoids and organic acids included in the

formulation. All ingredients are carried in a food safe naturally derived glycerin solvent which makes the active ingredient soluble in water.

#### **Effectiveness:**

Germ Gobbler™ is highly effective against Listeria, E-coli, Salmonella, Staphylococcus, Pseudomonas and much more.

**Product Description:** 

Aussan Germ Gobbler™ is a revolution in toxic free cleaning and decontamination, being the natural alternative widely used to control microorganisms. The product is manufactured from specially selected bioflavanoids and organic acids from vegetables and fruit, the ideal replacement for harsh chemicals such as chlorine, QAC's and other disinfectants. Germ Gobbler™ is a broad spectrum natural anti bacteria sanitizer that can be used in a wide range of industries, including food processing, pharmaceutical, water treatment, catering, medical, agriculture, livestock and many other applications. When used for sanitizing, this powerful agent destroys any bacteria that are present, while leaving a food safe, non-toxic residue that keeps bacteria from multiplying.

Safety:

Germ Gobbler™ is a much safer product to use than existing disinfecting and sanitizing methods as it presents no risk to children, pets or the operator during application, and has no harmful residual effect, it's so safe it can be sprayed around tradesmen while they work. Germ Gobbler™ is safe to use around children, pets, and food areas, and is ideal to replace harsh disinfectants and sanitizers.

#### **Toxicity:**

Germ Gobbler™ is not toxic to humans, plants or animals. The product is not washed from the surface it has sanitized, consequently it continues to sanitize until bacteria/pathogen loading exceeds the volume of Germ Gobbler™ present. It is food contact safe and non-hazardous if it enters waterways.

#### **Features of Product:**

- ✓ Wholly natural organic product.
- ✓ Broad-spectrum anti-microbial activity, which works against bacteria, (gram positive and gram negative).
- ✓ Non-mutagenic, noncarcinogenic, non-toxic, noncorrosive, non-tainting, and nonvolatile.
- ✓ Extended action (residual effect)
- ✓ Breaks down biofilm.
- ✓ Is effective even in the presence of organic matter.







## Aussan Germ Gobbler™











- ✓ Its mechanism of action is by the destruction of the cell wall.
- ✓ Stable at pH levels from 2 to 12 and temperatures up to 60°C.
- ✓ Non-corrosive. Does not attack metal and does not affect other materials.
- Retains its stability when exposed to light. Any change in colour of the product does not affect its efficiency.
- ✓ Does not taint food when used at manufacturers recommended concentrations.

### **FOOD INDUSTRY:** Meat Processing:

control of bacterial contamination in meat processing and packaging is an important health and economic consideration in the meat industry. Currently the antibacterial/antimicrobial regimes for this market are dominated by products containing high levels of chlorine, bromine, sulphur dioxide, benzoates and nitrites. These chemicals are toxic highly reactive materials and pose both application and disposal issues for operators the environment. Gobbler<sup>™</sup> is an organic sanitizer that can deliver the requirements of cleaning and sanitizing in a nontoxic. non-corrosive and biodegradable system, thus greatly reducing O.H.& S. and chemical toxicity issues. Germ Gobbler™ can be used for direct carcass washing to reduce levels of common pathogens

associated with food poisoning in domestic meat processing. Germ Gobbler™ is also a powerful natural antioxidant which may assist in prolonging the storage life of the meat. Germ Gobbler™ can be dosed into washing sprays or used in dip tanks or ice production for mechanical cleaning of meat after processing.

#### **Hard Surface Disinfection:**

Equipment washed, sprayed or dipped in Germ Gobbler™ will be sanitized. Germ Gobbler™ is effective to sanitize eating tables, bench tops, sinks, stoves, fridges, cool rooms, table tops, ovens, microwaves, cutlery, crockery, work surfaces, cutting boards, cutlery, washing up water, dishwashing clothes, and cookware.

#### **Fruit & Vegetable Processing:**

vegetable and sanitizing prior to processing or after processing to eliminate food poisoning from pathogens such as E.coli. Traditionally chlorine has been the product of choice because it is relatively inexpensive and in more recent times peroxy acid has also been used. Germ Gobbler™ is an excellent alternative to chlorine and peroxy acids in the spraying or dipping of fruit and vegetables during processing. It provides safe and effective residual sanitizing, without the risk of damage to delicate foods. Germ Gobbler™ is

not deactivated by common soils so solutions last much longer. Germ Gobbler™ is ideal for washing of whole fruit and vegetables before packaging and can be used to sanitize cut fruit and vegetables such apples, oranges, cucumber, etc prior to packaging. At the end of the process line Germ Gobbler™ is applied by sprays or dip tank system prior to packaging. Germ Gobbler™ should not be washed off the produce unless moisture will be detrimental to the product. Germ Gobbler™ keeps killing bacteria and fungus while it is present on the produce even while in its packaging. Fruit and vegetables treated with Germ Gobbler™ exhibit improved storage life. Germ Gobbler™ can be used as a preservative for some products such as olives. It is also effective on vegetables that have been cooked require protection from potential bacteria growth.

#### **Poultry:**

The of bacterial control contamination in poultry rearing, egg and carcass processing and packaging is an important health and economic consideration in the poultry. Germ Gobbler™ products can be used in a number of areas in poultry industry. Germ Gobbler™ can be used for surface sanitation on all processing surfaces and equipment with no requirement rinsing. The product is completely non-toxic to humans and







## Aussan Germ Gobbler™











animals and can be used for cage and pen cleaning. Germ Gobbler™ can be used during poultry rearing, as a liquid addition to the water supply for the birds. The broad spectrum biocidal efficacy reduces water contamination and cross infection.

#### **Seafood and Fish:**

control bacterial seafood contamination in processing and packaging is an important health and economic consideration in the meat industry. Germ Gobbler™ products can be used in a number of areas in the seafood industry. Fish is washed in water treated with Germ Gobbler™ removes slime microorganisms very effectively. Water used to make ice can be treated with Germ Gobbler™ prior to freezing. Spread an adequate quantity of flake ice over each layer of fish as it is stored. The slow melting of the ice will distribute Germ Gobbler™ over the fish continuous thereby providing sanitization. Dip prawns for a minimum of 5 minutes in Germ Gobbler™/water mix. By dipping the prawns in this solution it prevents "Black Spot." Care must be taken after this point to keep product temperature and condition stable by freezing or chilling. If black spot has already occurred, Germ Gobbler™ will not act as a bleaching compound and remove the black spot.

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#### Pet & Animal Care:

Germ Gobbler's™ organic formulation is designed to remove unpleasant odours from areas and bedding used by various pets. Very safe around all animals, and effective at controlling bacteria and mould commonly causing the odours. Germ Gobbler™ is ideal for use in animal shelters, kennels and for domestic applications.

#### Packaging, Shelf Life, Storage

Stable for 12 months at ambient temperature, out of direct sunlight. Available in 5L, 25L & 1000L flow bins. Super concentrate available for simple self-manufacturing.







## Decontx Virus Gobbler™











Potent disinfectant which is Log 5 Reduction tested against Listeria, E.coli, Staphylococcus and other dangerous pathogens. Specially formulated to conform to food-grade specifications.

Introduction:

Conventional disinfectants are usually tested against a Log 3 reduction. While suitable in many instances, where outbreaks of life threatening pathogens like Listeria, E-Coli and Staphylococcus occur, an even more powerful disinfectant is ideal. Nothing beats the peace of mind a Log 5 reduction can offer. A Log 5 reduction test challenges and pushes the limits of disinfection performance. Decontx Virus Gobbler™ test is tested against and passes essentially a 100 times higher pathogen bacteria loading.

#### **Product Description:**

Virus Gobbler™ is a revolution in toxic free cleaning decontamination, being the natural alternative widely used to control microorganisms. The product is manufactured from specially selected bioflavanoids and organic acids from vegetables and fruit, the ideal replacement for harsh chemicals such as chlorine, QAC's other disinfectants. Virus

Gobbler™ is a broad spectrum natural anti-bacterial sanitizer that can be used in a wide range of industries, including livestock, food processing, pharmaceutical, water treatment. catering, medical. agriculture, and many other applications. When used sanitizing, this powerful agent destroys any bacteria that are present, while leaving a non-toxic residue that keeps bacteria from multiplying.

**Mechanism of Action:** 

Disease and even death causing pathogens are an unfortunate reality in the farming and food processing industry, and are difficult manage with traditional disinfectants. The old conventional approach to controlling Listeria and Salmonella etc. is by poisoning them. As is widely documented, pathogens build up resistance to poisoning from traditional disinfectants and anti-biotics. making them harder to kill after every disinfection. So why is Germ Gobbler™ much more effective than traditional disinfectants? Germ Gobbler™ does not poison the rather organism, but mechanistically by destroying the cellular membrane of a microorganism (cell wall intrusion). This makes it impossible for the pathogen to build up resistance, meaning you get an excellent kill rate every time. Virus Gobbler™'s

efficacy is due to the unique blend of bioflavanoids and organic acids included in the formulation. All ingredients are carried in a safe and naturally derived medium which makes the active ingredients soluble in water.

#### **Food & Beverage Disinfecting**

- ✓ Hard surface disinfection
- ✓ Process equipment
- Clean In Place (CIP)
- Occupational health & safety hygiene.

#### **Sites of Application:**

- ✓ Poultry Farming
- ✓ Dairy Farming
- ✓ Pig Farming
- ✓ Dog Breeders
- ✓ Competition Pidgeons
- ✓ Breweries
- ✓ Starch processing plants
- ✓ Food processing plants
- ✓ Abattoirs
- ✓ Industrial kitchens & refectories
- ✓ Fruit wash treatment facilities
- ✓ Meat breaking plants
- ✓ Sauce blenders
- ✓ Canned food manufacturers

#### **Certifications:**

- ✓ SANS 636:2013: 10509/16606
- ✓ SANS 1853:2009: 10509/16608







## Decontx Virus Gobbler™











- ✓ NRCS Act5GNR 529/263515/040/0827
- ✓ Bureau Veritas conformity against SANS 51276 (EN1276)
- ✓ Log 5 Test Reduction
- ✓ Stainless steel valves
- ✓ Cat walks
- ✓ Fridges
- ✓ Transfer pumps
- Drain covers
- ✓ Conveyor belts
- ✓ Dip baths

#### **Mechanism of Action:**

- ✓ Concentrated
- ✓ Can be used cold
- ✓ Non-corrosive to metals
- Low-toxicity and nor mutagenic
- ✓ Non-corrosive to surfaces at the prescribed dosage
- No rinse required in certain applications
- Supports environmental sustainability
- Opportunities for goodwill and publicity
- ✓ Conforms to food grade specifications (SABS)
- Reduces mold and yeasts microbial levels
- ✓ Contains no chlorine, ethanol or aldehydes
- ✓ Readily biodegradable
- ✓ Cost-effective
- ✓ Reduces effluent
- ✓ Disrupts biofilm.

#### **Packaging, Shelf Life, Storage**

Decontx Virus Gobbler™ is stable for 12 months at ambient temperature, out of direct sunlight. Available in 100ml super concentrate, 5L, 25L & 1000L flow bins. Super concentrate available for simple selfmanufacturing.

#### **Typical Surface Disinfection:**

- ✓ Walls
- ✓ Floors
- ✓ Knife sterilizing units
- ✓ Platform scales
- ✓ Extractor fan housings
- ✓ Manufacturing vessels

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# Fat Trap Gobbler™







Odour reducing grease and fat trap treatment with an intelligent bacterial and microbial consortium for rapid enzyme fat and grease digestion in fat traps and drain lines.

#### **Green Cleaning Technology:**

Billions of years ago Mother Nature had already solved the problem of how to keep the Earth clean, naturally. Recent breakthroughs in science and technology have helped us to understand that using safe and beneficial microbia virtually any effluent can be degraded quicker and more cost effectively than traditional harmful chemicals while being completely eco-friendly.

#### Introduction:

South Africa's sewer and storm water reticulation systems are under tremendous stress because they are being abused, often unknowingly, by businesses who do not know how to safely dispose of their grease waste. The sewer reticulation system is only geared to accept human waste while the storm water reticulation system is only geared to accept rainwater. Anything other than this (grease and fat) has a negative impact on the systems and ultimately causes blockages.

Why Grease Traps?

Grease traps reduce fats and grease in our wastewater by slowing down the flow of greasy wastewater, allowing the grease and water to separate. The water continues to flow down the pipe to the sewer, while the grease floats to the surface and is retained in the trap. Grease reduces sewer capacity due to formation of greasy solids, causes blockages and the failure of pumps. It also causes overflows in sewer drains, posing a health hazard. Grease also reduces the efficiency of wastewater plants which leads to high operation and maintenance costs, and reduces the quality of effluent discharged into waterbodies posing a further even bigger environmental challenge.

#### Who Must Install Them?

All premises engaged in the cooking and preparation of food for other persons are required to install and maintain an adequately sized grease trap. Such premises include, but are not limited to, restaurants, takeaway shops, hospitals, hotels, bakeries, butcheries, schools, and supermarkets and more.

#### **Cleaning Cost Challenge:**

Fat traps not treated with Fat Trap Gobbler™ over time eventually start congealing due to the excess and constant daily inflow of hot fats, oils and greases. When this mass cools it coagulates into a solid mass which

can no longer flow into municipal water lines. Licensed waste oil collecting companies then need to physically remove this waste which costs many thousands of Rands. The removed grease still then has to be remediated offsite, which is just moving the problem out of sight. Mother Nature still sits with the problem at the end of the day. Worse is that sometimes grease traps are merely cleaned with chemical products which initially appear to work, but actually the fat has just temporarily changed state, only to convert straight back to fat downstream which blocks drain pipes and causes costly blockages, while also posing huge challenges for effluent sewer treatment plants.

#### **Odour Control Challenge:**

Grease and fat traps untreated with bio-enzymes are generally a huge source of repulsive odours and this presents business owners of food processing plants, kitchens and canteens with a serious problem. This odour problem becomes badly exacerbated in warmer summer periods. Fat Trap Gobbler™ provides an immediate improvement in odour control which markedly improves with time, often to the point of total odour elimination.

Wastewater Bylaws:





# Fat Trap Gobbler™







Effluent water leaving a fat trap and entering the general waste stream headed for sewer plants needs to comply with predetermined effluent waste levels as set by municipalities, including but not limited to PH and C.O.D. to name a few. Waste oil, grease and fats should be collected by a licensed waste oil collector at regular intervals and a copy of the waste transfer certificate must be kept for at least two years, and be made available for inspection as per the applicable Wastewater By-Law. It may not be disposed of into general waste. If the grease trap is not properly maintained, the occupier may be liable for any damages caused to the sewer system, and the industrial effluent permit may be withdrawn and the entire industrial effluent discharge may be blocked off from the municipal sewer. This in turn has dire consequences for the business in question.

The Solution:

The advanced bacterial consortium in Fat Trap Gobbler™ are highly intelligent as they produce the requisite enzymes to rapidly degrade and break down the fats, oils, greases, proteins, and starches found in grease and fat trap environments, and in turn cleverly use those components as food sources. Fat Trap Gobbler™ is a proprietary super high lipase enzyme (fat eating) producing bacteria which gives it its amazing

and consistent results. Regular dosing with Fat Trap Gobbler™ completely eliminates the aforementioned challenges, the grease is permanently converted into water and carbon dioxide!

#### When To Dose:

Grease traps should not be dosed during operating ours when hot oils and water affect bacteria and enzyme function. Dosing after hours or at kitchen closing all serves to minimize the effects of the bacteria being diluted due to the constant inflow and discharge of water. Use with Beco-zyme Advanced Dosing System to reliably and completely automate the grease trap treatment process for after-hours dosing, when the fat trap is cooler for optimum bacterial growth and enzyme production, and to minimize the effects of dilution.

#### **Amount To Dose Per Trap:**

**Trap Size Less Than 500L:** (Restaurants, Canteens, Hotels, Lodges, etc.): Dose 833ml of Fat Trap Gobbler™ daily (25L per month)

Trap Size Greater Than 500L: (Communal Shared Fat Traps, Outdoor Traps, Food Processing Plants, Butcheries etc.): Dose 833ml of Fat Trap Gobbler™ 10X Super Concentrate (25L per month)

**Grease Trap Maintenance:** 

The kitchen occupier should regularly collect all food solids which have collected in the grease trap food separator (SANS 10-252-2 requirement) and dispose of these with general waste in order to ensure correct grease trap functioning. This should ideally happen daily.

Good practice is to wipe and scrape plates, pans and utensils before washing, and put the food waste into the bin. Use strainers in sink plug holes, and empty food contents into the bin. Maintain grease traps and related equipment regularly with Beco-zyme Fat Trap Gobbler™.

#### Packaging, Shelf Life, Storage

Stable for 12 months at ambient temperature, out of direct sunlight. Available in 5L, 25L & 1000L flow bins. Super concentrate available for simple self-manufacturing.





## Beco Oil™











Superior heavy duty degreaser with superior hydrocarbon remediating properties which corrects C.O.D. and other water effluent discharge requirements while eliminating waste disposal costs while reducing health and safety risks.

#### **Natural Bioremediation:**

Oil Gobbler™ simply degreases better! Bio-remediation is the process of using bio-enzymes to degrease far more effectively than solvent based degreasers while converting these hazardous oils and greases into carbon dioxide and water. Companies can save a fortune by avoiding expensive water effluent discharge fines addressing C.O.D. discharge pollution requirements, eliminating hazardous waste, reducing health and safety risks, and prolonging vehicle and sign writing life.

#### **Massive Cost Savings:**

Oil Gobbler™ provides enormous multiple factor cost savings to organizations. It degreases quicker and more effectively, saving time labour. It addresses water effluent C.O.D. discharge requirements by correcting waste water pollution, where solvent degreasers worsen

the problem, and increase fines payable. It significantly prolongs engine and vehicle component lifespan. It's a well-known fact that solvent based degreasers cause long term havoc with expensive rubber and plastic components in engines and on vehicles. The water-based formula in Oil Gobbler™ solves this problem, while forming a protective layer on metals. Solvent degreasers also fade signwriting on trucks, busses and vehicles. This is another hidden cost to companies. Oil Gobbler<sup>™</sup> avoids this problem. Then there is the actual cost of product. Many degreasers must be used undiluted or lightly diluted. Oil Gobbler<sup>™</sup> costs nearly the same on a litre for litre basis, but the digestive microbes allow it to be diluted many times further for great monthly chemical spend savings.

#### **Product Description:**

Oil Gobbler™ is a powerful waterbased bio-remediating cleaner with superior degreasing capabilities which eliminates waste disposal costs and health and safety risks. It effectively converts petrol, diesel, motor oils, fuel oils, grease, antifreeze, hydraulic, brake, ATF, cutting fluids, as well as heavy synthetic oils and greases into carbon dioxide and water. Oil Gobbler™ prevents slip-and-slide accidents by removing greasy films, leaving surfaces dry and oil-free. It reduces the ability of flammable hydrocarbons to ignite making it ideal for oil, fuel tank and confined space cleaning.

#### **International Benchmark:**

prestigious international petrochemical company presented their current globally used microbe remediating product performance challenge the indigenous microbes in Oil Gobbler™. We showed an identical Petroleum Hvdrocarbon Total (T.P.H.) degradation, while costing a fraction of the price. An unexpected Gobbler™ result showed Oil microbes degrading waste at a staggering 20% faster rate with profound further cost, performance and environmental advantages.

#### **Enzyme Cleaning Explained:**

Oil Gobbler™ microbes are so powerful that they quickly remove even the heaviest build-ups of oil, grease and grime from the toughest environments, outperforming even the harshest solvent hased degreasers. Ecozyme microbes rapidly secrete massive concentrations of digestive enzymes permanently convert hydrocarbons into water and carbon dioxide, in an ongoing and repeating process.

#### **Using Soils To Clean Better:**

The raw cleaning power provided by Oil Gobbler™ converts fatty soils into readily dissolvable soaps, thus turning them into an extra free



## Beco Oil™











cleaning agent, which further contributes to the emulsification and removal of greases and oils. This extra cleaning power also neutralizes acid soils, while breaking down proteins and starches.

#### **Proprietary Buffer Action:**

Acidic greases significantly lower the pH of cleaning solutions to well below optimum levels for great results. Oil Gobbler™ is an excellent buffer and the effect of acidic greases is nullified, keeping the solution at a constant pH over an extensive loading of acidic greases, ensuring its effectiveness in cleaning functions involving the conversion of greases and oils, and the suspension of particulate soils.

#### **Science of Cleaner Surfaces:**

Any effective cleaning process involves removing the soil from the surface, dispersing the soil in the solution and preventing deposition of the soil on the surface. Oil Gobbler™ contains an optimum formulation for heavy duty cleaning which involves the removal of high loadings of fatty and oily soils and particulate soils. These grease and dirt deposits are scattered into small suspended particles that are easily rinsed away without re-depositing on freshly washed surfaces. Oil Gobbler™ removes particulate soils by charging both the soil and the surface with negative charges. The soil is broken into fine particles,

making them easier to remove and easier to suspend in the solution. The negative charge of Oil Gobbler™ has an additive effect on the negative charge of the particulate soil. The repelling forces keep the particles apart and prevent them from agglomerating and forming larger particles.

#### **Corrosion Inhibitor:**

When metals, glass and ceramic surfaces are cleaned with Oil Gobbler™, a natural protective barrier is formed protecting against harsh detergent ingredients such as phosphates, synthetic detergents and other alkalis. The active ingredients in Oil Gobbler™ negatively charged and adsorb onto metal surfaces forming a thin corrosion inhibiting monomolecular film which inhibits corrosion. The film does not build on itself and will not form excessive scale. The film is an electrical insulator and blocks the electrochemical reactions corrosion, yet is thin enough that it does not obstruct water flow.

#### **Applications:**

Oil Gobbler™ is exceptional for removing oil and grease from garage forecourts, parking garages, drivethroughs, concrete floors, workshops, warehouses, tools, engines, wheels, car parts, car washes, aircraft carriers, ships, trucks, metals, fuel and oil tanks and much more.

#### Features of Product:

- Remediates hydrocarbons into water and carbon dioxide
- ✓ Easily applied with mops, auto floor scrubbers, and high pressure degreaser equipment
- ✓ Removes oil and grease from surfaces which prevents slipand-slide accidents.
- ✓ Compatible with all type oil / water cleaning systems
- ✓ Water based
- ✓ Forms protective film on metals
- ✓ Non-toxic, non-corrosive
- ✓ Eliminates 100% disposal costs

#### **Dilutions & Application:**

Heavy Soils: Undiluted to 1:5 water. Medium Soils: 1:10 with water Light Soils: 1:30 to 1:100
For best results, wash clean with a high-pressure hose. Works instantly. For thick greases, allow a 5 to 10 minute contact time.

#### **Safety Precautions:**

Wear Personal Protective Equipment (P.P.E.'s) at all times.

#### Packaging, Shelf Life, Storage

Stable for 12 months at ambient temperature, out of direct sunlight. Available in 5L, 25L & 1000L flow bins. Super concentrate available for simple self-manufacturing while saving greatly on shipping costs.

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## Poultry Litter Gobbler™









Chemical-free non corrosive poultry litter treatment for incredible ammonia, pathogen and odour control. Increases poultry health by forming a continuously working protective biological barrier.

#### **Current Challenges:**

Ammonia is a serious and continued challenge for poultry and the farmer. It's corrosive to equipment and damaging to the environment. Conventional wisdom is to change the acidity of the litter to limit ammonia. Ammonia is a volatile compound and above 7.2 PH it acts as a gas with adverse effects. Below PH it's converted ammonium. This process fluctuates continually, and as ammonia levels increase costly ventilation must be used, which is not a carbon green solution. Harsh and expensive corrosive chemicals are needed to increase PH in an increasing and difficult cycle.

#### **Mode Of Action:**

Poultry Litter Gobbler™ takes novel approach to ammonia by:

**Biological Conversion:** A proprietary microbial consortium targets ammonia and permanently converts it to ammonium nitrate fertilizer.

it to ammonium nitrate fertilizer

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Web: <u>www.becon.co.za</u> Email: <u>leandra@becon.co.za</u> Lignin / Carbon: Ammonia gas levels increase when there is a lack of carbon in the litter bed. When the amount of carbon is less than that required for converting available nitrogen into protein, Poultry Litter Gobbler™ makes better use of the available carbon to eliminate the excess nitrogen as ammonia. It adds considerable carbon in the form of lignin, a crucial factor in reducing ammonia.

#### **Organic Acid Ammonia Chelation:**

Poultry Litter Gobbler™ helps to reduce ammonia through a process called chelation.

#### **Competitive Exclusion:**

Health Challenge: Pathogens and their detrimental effects in the poultry environment is are well documented. They are extremely dangerous, and very difficult as well as costly to control. They naturally develop resistance and immunity to substances that harm or kill them, in other words harsh chemicals, disinfectants, sanitizers antibiotics. They build up immunity and resistance over time and become harder to kill the next time. In this vicious unstoppable cycle extra harsh chemicals and more powerful and costly disinfectants are always needed.

**Beco-zyme Solution:** Beco-zyme bio-enzymes are safe and good probiotics which naturally occur in nature, and are not genetically modified in any way. In every few drops of Beco-zyme product, there

are tens of millions to billions of good bacteria. When they are applied they quickly go in search of food and space, and rapidly outcompete the bad bacteria for their food source. Quickly Becozyme bacteria keep on reproducing at an exponential rate completely colonize the area or system. Soon the bad pathogens starve off and die. An incredible fact where is that conventional disinfectants usually stop working after application, the Beco-zyme process can continue for hours, days and more after application, so the effect of a healthy flock environment is long and lasting.

#### **Non-Corrosive:**

Corrosion of expensive equipment is a serious problem that ruins the profit of poultry operations. Corrosion can happen anywhere in a poultry operation, and current practices in broiler operations only increase the opportunity corrosion. Corrosion is simply the deterioration of materials through a chemical reaction with environmental condition. Perhaps the most noted corrosion occurs with the rusting of iron or other such metals. Corrosion is not confined to just metal as it affects plastics, concrete, wood and other materials. The single most deconstructive chemical created by a poultry operation is ammonia. Ammonia will always be produced in a poultry house as it is a reaction between





## Poultry Litter Gobbler™









and manure, moisture, microbiology. Typically the higher the humidity of a poultry house the greater ammonia levels become. Ammonia is well noted for its detriments to the welfare of the birds, but we rarely hear about this deterioration of metal components poultry house. This deterioration includes valuable fasteners, heaters, walls, ceilings and any other metal object. Many poultry farmers combat ammonia by applying an acid product for poultry litter treatment. The purpose of acid products is to lower the Ph value of the litter. The ends of the spectrum on the Ph scale are ammonia and acid. A very rudimentary thought would be "where there is ammonia let's apply acid to make it neutral." This solution has not been thought out. It would take as much acid as ammonia to make a fair play and truly offset the ammonia. That would be extremely expensive not to mention dangerous. Use such products lead to elevated acid levels that in turn create an even more poultry corrosive house environment. Products that convert acid materials lead into groundwater contamination. Gobbler™ Poultry Litter completely safe and is not corrosive. It's made up of entirely organic constituents and poses no problem when contacted with skin or animals. implementing complete poultry management system with Poultry Litter Gobbler™

a farmer is extending the life of his equipment among other things and is improving his return on investment.

#### **Long Term Ammonia Control:**

For long term ammonia control, conventional wisdom has been to spread powerful acid products into the poultry house. The logic is that by making the pH level of the litter low enough, if it's more acidic, then the ammonium can't in turn convert into ammonia gas. The flawed rationale in this instance is that the ammonium is still there. The acid doesn't do away with it. It just traps the ammonium and delays the inevitable problem. Eventually, the poultry manure itself will raise the pH, and the ammonia problem will Poultry Litter Gobbler™ works completely differently to acid treatments. Beco-zyme beneficial bacteria give the natural process a head start which break the ammonium down faster than it normally would. A specific strain of bacteria is present to bind the ammonium with nitrogen to make ammonium nitrate which conventional plant fertilizer. Once bound up as fertilizer, it can't change back and ammonia is permanently eliminated. Competitive exclusion takes time for a colony to establish, and after a few days ammonia levels begin to plummet and one will continue to see low ammonia levels. When dealing with a poultry house that has been previously treated

with Poultry Litter Gobbler™ ammonia levels will be much lower than a house treated with acid, and adding a fresh application Poultry Litter Gobbler™ drastically improves the situation. With repeated use of Poultry Litter Gobbler™, ammonia problems are nearly entirely eliminated.

#### **Easy Liquid Application:**

Poultry Litter Gobbler™ is an easy to apply liquid treatment. Simply mix our highly concentrated formula with water in a clean pressure sprayer and apply thoroughly on the poultry house floor. Conventional dry bulk products are difficult to handle and are labour intensive. In the time what typically takes a few workers to cover a brood section of a broiler house, an entire house can be covered by one person with Poultry Litter Gobbler™. There is also no need for P.P.E.'s (Personal Protective Equipment).

#### **Application Instructions:**

**Step 1:** Seal the house after the flock is removed to maintain a higher temperature. Microorganisms are more effective in warmer temperatures. Ventilate before reentry for service, or if moisture begins to condensate in the house. Step 2: Immediately after de-caking, and before adding new bedding, apply Poultry Litter Gobbler™ at the rate of 1L per 400 square meters. For each 1L of concentrate dilute with 100L of water. After diluting wait 30

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## Poultry Litter Gobbler™





minutes before applying. A clean pressure sprayer which has not been previously contaminated by disinfectants must be used. Evenly cover the entire surface of the litter bed with spray.

Ideally seal the house for 24 hours after application. Follow the standard ventilation program before and after bird placement.

#### **Product Features:**

- √ Non-corrosive
- ✓ Keeps litter dry
- ✓ Reduce mortality rates
- ✓ Reduces odour
- ✓ Maintain body heat
- ✓ Reduce litter bugs
- ✓ Reduce condemnation rate
- ✓ Increase feed conversion
- ✓ Increase flock weight
- ✓ Binds ammonia
- ✓ Produces clean air
- ✓ Lowers utility costs
- ✓ Lowers exhaust fan costs
- ✓ Reduces caking in litter
- ✓ Non-toxic
- ✓ Convenient liquid form
- ✓ Easy to apply liquid
- ✓ Less shavings required
- Applied with conventional spray equipment

#### **Packaging and Storage:**

Packaged in 25L drums. Store in a cool, dry place. Shelf life valid for 1 year.

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## Scale Gobbler™









Extremely powerful nontoxic deep cleaner formulated with natural oils for removing body fats, lime scale, dirt, rust and more. Controls odours and pathogens while imparting a long lasting, powerful fresh fragrance.

#### **Product Description:**

Beco-zvme Scale Gobbler™ is a nontoxic, non-volatile formulation for the effective deep cleaning of neglected environments, slicing though and removing dirt deposits, lime scale and rust with total ease. It is exceptional for cleaning and brightening stainless aluminium and copper equipment. It is extremely versatile while remaining cost effective.

#### Natural Oil Additive:

Scale Gobbler™ is formulated with a naturally occurring oil extract additive which has excellent cleaning properties. It helps to effectively remove odours and control the growth and spread of harmful pathogens while imparting a powerful, fresh and long lasting clean smell.

#### **Washroom Deep Cleaning:**

Scale Gobbler™ is amazing for deep cleaning all washrooms, especially high traffic environments like mines. It slices through body fats and hard water build-ups with ease while leaving a visually shiny and clean surface. Simply apply with a pressurized sprayer, starting at the top of the walls, evenly coating all surfaces including toilets, basins and urinals. Allow a 10 minute contact period. Manually scrub sprayed surfaces down to loosen embedded soils. Rinse thoroughly with a high pressure water sprayer. To prevent cross contamination do not wipe surfaces down, rather allow natural drying. Perform swab tests if required.

#### **Concrete / Masonry Surfaces:**

Scale Gobbler™ is a fast acting, easy to use acid-base cleaner for pre-cast concrete, concrete, masonry, grout, tile and natural stone surfaces. Scale Gobbler™ removes cement grout haze and mortar residue, joint cement, lime and hard water, deposits, efflorescence, rust and other dirt and grime. It's suitable for interior and exterior use. The unique nature of Scale Gobbler™ means it's a milder alternative to other harsh acid base cleaners for concrete, tile, grout and natural stone surfaces. superbly for pre-cast concrete pavers, concrete, masonry, sanded grout, flamed & honed granite, cleft & honed slate, flamed & honed limestone, tumbled & honed marble, cast stone, unglazed ceramic tile, quarry tile, porcelain

tile, swimming pool slides and tiles at water surfaces.

#### **Catering Industry:**

Calcium and lime scale deposits form a huge challenge in cleaning bain-maries, kettles, dishwashers. Use Scale Gobbler™ at a 1% to 5% dilution depending on soiling to remove quickly and easily.

#### **Stainless Steel:**

While stainless steel is great at resisting corrosion, unfortunately not fully stain or rustproof. Exposure for example to high salinity environments can remove the native protective layer of chromium oxide and allow oxidation/corrosion to occur at the substrate. Scale Gobbler™ verv effectively removes the surface rust, without impacting the stainless steel substrate. It dissolves the rust (iron oxide) without attacking the other components of the stainless steel (chromium and chromium oxide, nickel, and iron).

#### **Rust Removal:**

Scale Gobbler™ is superb at removing rust. It uniquely dissolves rust quickly while etching iron very slowly. One can leave metals in Scale Gobbler™ for much longer than competing technologies. A unique advantage of Scale Gobbler is that it leaves a fine coating of iron phosphate behind, which temporarily prevents rust. Scale

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## Scale Gobbler™









Gobbler™ leaves a bright metal finish which is visually appealing, while being perfect for painting afterwards. It's also great for panel beaters as a wash to treat surfaces before painting as it removes waxes, oils, and slight amounts of rust that form between sand blasting and painting, while leaving a thin protective coating behind.

#### **Aluminium & Copper:**

Scale Gobbler™ removes dust, dirt, grime, and grease from any aluminium or copper coils and fins of cooling units and air conditioners. When used regularly, it keeps coils clean to promote more efficient operation and lowers the power consumption of air conditioner and refrigeration units.

#### Pipe & Drain Cleaner:

Scale Gobbler™ is a highly effective agent for unblocking clogged, toilets, drains, urinals, showers and basins. Pour 500ml to 1 litre of undiluted product directly into the affected area and allow to stand overnight. Rinse the affected outlet with a kettle full of boiling water. Repeat the process again if necessary. Scale Gobbler™ is also excellent for unblocking old building pipes plumbing which have accumulated calcium and magnesium deposits over the years, restricting their inner diameter greatly. Water flow and pressure normally reduces to an almost nonexistent state. This normally requires a very expensive plumbing overhaul, but instead can be very simply and cost effectively be treated with Scale Gobbler™.

#### **Dairy Industry:**

Scale Gobbler™ is an excellent milkstone remover. For occasional descaling of H.T.S.T. plant, storage tanks and pipelines, use a 1.0% to 5% dilution at approximately 80 degrees Celsius. For use in a two stage cleaning following alkali, use a 1% solution at 80 degrees. For a U.H.T. plant, following alkali circulation, use at 2% solution. For cleaning churns, remove milkstone by soaking in warm solution at 5% or operate the churnwasher for 24 hours days using a 1% solution.

#### **Brewing Industry:**

To descale fermenting vessels and, maturation tanks, circulate a solution for 45 minutes. Where heavy scaling still exists, circulation may be repeated using the same solution if the descaling is incomplete. To descale paraflows at both the liquor and product side, use a 7% solution circulated for 45 minutes at up to 50 degrees. For routine cleaning, Scale Gobbler is ideal for cleaning maturation tanks, mains, bright beer tanks, stainless keg fillers and bottle fillers. At a 3% solution in warm water it will remove beerstone deposits and also light protein soiling. Scale Gobbler™

is also suitable for cleaning the brewery plant under a carbon dioxide atmosphere, enabling the carbon dioxide to be retained. Soak stainless steel and aluminium casks in a hot 3% solution or run the cask washer for a short period on at a 1% solution.

#### **Food Industry:**

Scale Gobbler™ is an excellent general descaler for tanks, pipes, heat exchanges and more. Use undiluted for the very effective removal of fish slime from fish boxes and dried blood from tiled surfaces in abattoirs.

#### **Precautions & Handling:**

Don't use on acid sensitive or polished surfaces. Test inconspicuous patches of surfaces before use. Protect incompatible neighbouring surfaces. Wear appropriate Personal Protective Equipment (P.P.E.'s). Avoid strong bases, zinc, magnesium, oxidising agents, chrome plating and marble.

#### Packaging, Shelf Life, Storage

Stable for 12 months at ambient temperature, out of direct sunlight. Available in 5L, 25L & 1000L flow bins. Super concentrate available for simple self-manufacturing.





## Beco-zyme Septic ™











Potent enzyme producing bacterial treatment for septic tanks, septic systems, and drain lines which digests solid waste, reduces odours, and keeps systems flowing naturally

#### **Green Enzyme Technology:**

Billions of years ago Mother Nature had already solved the problem of how to keep the Earth clean, naturally. Recent breakthroughs in science and technology have helped us to understand how this is made possible. By using the correct good or beneficial bacteria virtually any dirt build up, stain, odour, septic system, FOG's (fats, oils, greases) or even hydrocarbon based oil stains can be safely cleaned, bio-degraded and removed quicker and more cost effectively than traditional harmful Septic chemicals. Beco-zyme Gobbler™ bacterial cultures are uniquely cultivated from South African soils naturally giving them a massive home ground performance advantage. The bacteria, microbes and enzymes in Septic Gobbler™ treatment metabolize much faster, reproduce quicker and survive for longer.

#### **Product Description:**

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Drain lines and septic systems are especially susceptible to the rapid build ups of fats, oils and greases (FOG's) and the huge and expensive

problems they cause, with systems eventually completely blocking up. Beco-zyme Septic Gobbler™ treatment is a special proprietary blend of aerobic and facultative anaerobic bacteria which rapidly produce a wide variety of enzymes to rapidly degrade waste, and quickly and easily solve these plumbing and septic build up challenges. The treatment contains unique enzyme producing bacteria microorganisms which don't just emulsify the waste but actually feed on and totally eliminate it, with the resultant by-products being carbon dioxide and water! Septic Gobbler™ is totally safe and is nature's way of treating, digesting organic waste, eliminating odour and removing organic build-up from pipes, tanks, leach drains, septic tanks and septic systems.

#### **High Costs Eliminated:**

An incorrectly functioning septic system can become a very costly affair. With the increased prevalence of bleaches, biocides and anti-bacterial agents in many of today's consumer products, the naturally occurring bacteria, microbes and enzymes are easily killed off in septic systems and the natural balance is destroyed. Where traditional enzyme and bacterial products are obliterated, Septic Gobbler<sup>™</sup> powder is incredibly engineered to be naturally tolerant of harsh chemicals and detergents. Regular dosing with Septic Gobbler™

is extremely cost effective and eliminates the need for expensive plumbing companies, honey suckers and waste companies, not to mention dangerous chemicals and the harm they cause the environment. Regular proactive maintenance dosing with Septic Gobbler™ powder costs a fraction of traditional reactive methods and is an essential maintenance item.

#### **Sewer Overflows & Spills:**

When sewer drain lines get blocked, raw sewerage spills out into suburbs and townships and causes a massive potential health hazard which needs to be immediately treated to contain possible cholera and typhoid outbreaks. Septic Gobbler™ powder can simply be sprinkled over sewerage spills to contain the problem, while immediately helping to contain odours. Bad pathogens are controlled through a scientific process known as Competitive Exclusion. Sewer lines are nearly always caused by Fat, Oil and Grease blockages (F.O.G.'s) and Sewer Gobbler™ is ideal to be shock dosed into the affected sewer lines to biodegrade the cause of the problem quickly and effectively.

#### Advantages:

- Eliminates foul odours
- Bioremediates and digests waste
- Naturally restores system health
- Keep drain and septic lines flowing freely
- Treat sewer spills and overflows







# Beco-zyme Septic ™











- Massive cost savings physical and chemical methods
- ✓ Simple to dose, easy to maintain
- ✓ Reduces pathogenic disease causing organisms

#### **Application:**

Application: Simply add the below dose to 2L - 5L of warm water and pour down basins, showers and baths or flush down toilets. Alternate the outlet every time for a multiple treatment effect. Dose after hours or at night.

Maintenance Dose: 1kg of Septic Gobbler™ per 1000 Litre of septic

tank capacity.

Shock Dose: Repeat the above Maintenance Dose weekly if necessary until results are achieved.

#### For Best Results:

Use with Beco-zyme's full range of bio-enzymatic products which benefit each other as you use them. and Save money improve performance while reaping multiple benefits compared to traditional chemicals. Avoid using disinfectants and harsh chemicals, these kill our beneficial micro-organisms and harm the environment.

#### Packaging, Shelf Life, Storage

Stable for 12 months at ambient temperature, out of direct sunlight. Available in 5Kg buckets & bulk 20Kg bags. Buy bulk for simple selfmanufacturing and repackaging to make Pit Gobbler™ for pit latrines.

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## Sewer Gobbler™











A proprietary treatment of specially selected bacteria and microbial strains which produce massive concentrations of digestive enzymes when introduced into wastewater and sewerage environments.

#### **Introduction & Challenges:**

Sludge: Sludge handling is the number one problem waste water treatment plants. What enters the waste water plant has to exit the plant at some time and some place. The more sludge removed, the greater the expense in labour, offsite hauling and disposal, not to mention that the huge carbon footprint of offsite haulage costs. Sludge handling costs vary from tens of thousands of Rands in small plants, to hundreds of thousands or even several million Rands in larger facilities, on a monthly basis.

Mechanical Equipment Failure: As sludge builds up in the system the waste water's viscosity becomes much thicker which immediately puts enormous strain on all the mechanical machinery in the sewerage plant which results in components failing and breaking more often from the extra torque requirements placed on them for which they are not designed. Equipment these repairs in instances are high capex items

which are mostly unplanned for and extremely expensive.

Electricity Costs: An addition to the mechanical strain sludge causes, the electro mechanical systems in the plant run at a fraction of their intended efficiency resulting in large inefficiencies of scale which greatly increases utility and overall electrical bills which are huge cost items when looking at the overall monthly costs of running a sewer treatment plant.

Downtime: With the problems caused by sludge build-up, mechanical failure is eventually guaranteed, and this results in the total in-operation of smaller plants or partial closure of larger plants for repairs. This in turn places severe operational loads and constraints on other sections of the plant which has a vicious knock-on effect which starts all over again in a continuing and downward spiral.

Odour Pollution: The odour generated by sewer plants is enormous and can often be overbearing depending on the state of the waste in the plant. By pure design or eventual population expansion sewer plants are often situated in residential or commercial areas and the foul odours generated can be unbearable. This has an immediate and negative effect on perception of commerce and industry as well as deteriorating property value, not to mention quality of life for surrounding communities and businesses.

#### **Ongoing Problems:**

large expenditures challenges are not likely to decrease because of expanding population, fewer approved disposal sites, inflation, increased use of chemicals which add to sludge volume and deteriorated state of the sludge and waste, as well as ever tighter growing regulations. There is an enormous consumer trend of disinfectant increasing the properties of commercial hygiene, cleaning and personal care products. These disinfectants are transferred downstream and indiscriminately kill all bacteria, good and bad, which are needed for sewer plants to function correctly. Without good bacteria, sewer plants will grind to an immediate halt.

#### The Solution:

Sewer Gobbler™ is the solution to reducing or eliminating these costs and solving the problems faced. The usual approach in waste water plants has been to add plant capacity with larger tanks, more air, etc., and to a degree this is sometimes necessary. This is extremely costly and involves enormous capital expenditure which is normally not sufficiently budgeted for, but yet still with a resulting increase in sludge handling and expenses. It is important to note that the physical aspects of a plant do not digest the waste. It is the enzymes produced by bacteria and





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## Sewer Gobbler™











microorganisms. The best point of attack is to reduce the volume of solids thereby effecting immediate saving in hauling costs. This is done by bio-augmentation of the existing microorganisms through addition of biologically active bacterial seed cultures which produce massive amounts of enzymes, on a regular preventive maintenance schedule. Bio-enzyme bacterial augmentation means helping mother-nature do a better job microbiologically rather than from continued use of chemical additives. Just like an aspirin that relieves some cold symptoms, but does not cure the cold, chemical additives temporarily relieve the symptoms of poor digestion, but do not cure the problem. So what exactly are biologically active seed cultures?

**Biologically active cultures:** 

Biologically active seed cultures are microbial strains of naturally occurring microorganisms that have been isolated and trained to produce large amounts of digestive enzymes when introduced into a waste system. The special ecofriendly bacterial enzyme producing strains in Sewer Gobbler™ are engineered to be thousands of times more active than those found in nature and are chosen for their natural resistance to harsh chemicals and detergents. This is the why proper enzyme reason producing microbial strains in a

product are so important. They must be the right amount and of the proper kinds. Our bacteria are uniquely derived from South African soil cultures, giving them a natural home ground performance advantage and therefore metabolize faster, reproduce at superior rates and live for longer. Every bacterium in Sewer Gobbler™ is a miniature powerhouse enzyme factory which produces enzymes 24 hours a day. It is the main thrust of biologically active seed cultures. Regular dosing of sewer and waste water plants ensures dominance over naturally occurring less active bacteria for the ultimate results.

**Automated Dosing:** 

A challenge in any environment is the always unpredictable human factor. Precise and accurate dosing is required on a literally per minute basis, hour by hour, 24 hours a day, 365 days of the year. When trying to administrate product in powder form this becomes a physical impossibility. Product theft is also unfortunately a reality in some environments. Sewer Gobbler™ is uniquely available in liquid as well as traditional powder form. In liquid form this means being able to precisely and accurately dose with the cost effective Beco-zyme Advanced Dosing System with battery backup. The system can be physically secured to eliminate the chance of theft. Once per month the bio-enzyme liquid can be replaced

for completely and reliable autonomy.

#### **Effluent Discharge Results:**

Sewer Gobbler™ gets results, period. In case study after case study on actual sewer plant effluent, it demonstrates massive reductions in COD's, Ammonia, Nitrate, Nitrite, Phosphate, E-Coli, Faecal Coliforms and Odour in a very short space of time. These test results are freely available, please request them.

#### **Features of Product:**

- Hugely reduce sludge & solids
- ✓ Reduce E-Coli & Faecal Coliforms
- ✓ Massively reduce odours
- Reduce COD, BOD, Ammonia, Nitrates, Nitrites & Phosphates
- ✓ Reduce equipment repairs
- ✓ Reduce monthly running costs

#### **Application Rates:**

Vary according to the load on the sewage plant. Can be added to any aerobic or facultative anaerobic zones of the sewage treatment process to augment the biological activity of the natural treatment process. The product should ideally be continuously dosed at the recommended rate and preferably added at the inlet point to the sewage treatment plant.

#### **Dosage Rates:**

**Shock Dose:** 0,1% to 1% of total sludge volume (if required)





# Sewer Gobbler™











#### **Maintenance Dose:**

**Concentrate:** 1L – 5L per mega litre

of daily flow rate

Super Concentrate: 100ml to 500ml per mega litre of daily flow rate

Powder: 100g to 500g per mega litre of daily flow rate (additional nutrient pack included in the powder form for an extra

performance boost)

#### For Best Results, Use With:

- Beco-zyme Pump Station Gobbler™, a first of its kind bioenzyme sludge and waste digester which treats pump stations, then the sewer lines leading to the sewer plant, and lastly eventually also hugely benefitting the sewer plant itself.





# Sludge Gobbler™











Aerobic pre-treatment for use in fat traps, sewage pump stations, sewer lines and waste water plants which rapidly dissolves sludge from fats, oils and greases. Eliminates odours while creating an oxygen rich environment for controlled microbial dosing

Microbes normally require a pH range from about 5 to 8,5 to really function optimally. This can't occur in an acidic environment. Sludge Gobbler™ contains an intelligent buffer system, which naturally brings waste water to a more neutral pH which creates a superior growth environment for the microbes naturally present in the water.

high in sludge, fats, oils, and greases

are usually acidic in nature.

#### **Product Description:**

Beco-zyme Sludge Gobbler™ is an environmentally friendly multifunctional once off shock dose or optional pre-treatment for microbial dosing, designed to oxygenate wastewater and remove odours while simultaneously preparing an incredibly oxygen rich environment which initiates the aerobic biological breakdown of organic compounds in the environment.

#### **Oxygen Rich Environment:**

Sludge Gobbler™ within mere minutes after application very rapidly increases dissolved oxygen levels present in the waste water environment, up to an incredible 80%! This is a massive amount more than can be normally achieved with manual aeration processes.

#### PH Buffer Systems:

Due to the nature of waste water environments, many environments

#### **Odour Control:**

Sludge Gobbler™ is an excellent way to quickly treat foul odours emanating from waste water and septic environments. It quickly eliminates anaerobes which are responsible for foul and noxious malodours typical of these environments.

#### **Extremely Rapid Function:**

Most waste water treatment preparations are tablet based and slowly dissolve over many weeks at a time. Sludge Gobbler™ is uniquely powder based and therefore reacts instantly. The above pictures show the incredible and rapid results achieved within just minutes after application!

#### **Applications:**

- -Municipal & Industrial Waste Water
- -Pump Stations & WWTW's
- -Grease Traps
- -Septic Tanks & Sewer Lines

#### **Optimal Growth Conditions:**

Sludge Gobbler™ is intended as a special temporary or once-off shock dose solution for neglected waste water environments. It serves as the ideal platform to prepare for the optimal long-term growth environment for Beco-zyme's range of bio-enzyme products including Sewer Gobbler™, Septic Gobbler™ and Pump Station Gobbler™ which superbly control typical waste environments for the long term.

#### **Highly Cost Effective:**

Sludge Gobbler™ is very cost effective. It is locally produced by Beco-zyme, and unlike many expensive traditional tablet products which are imported, we avoid costly exchange rates and the huge carbon footprint of importing products from the other side of the globe.

#### **Product Advantages:**

- ✓ Rapidly dissolve sludge
- ✓ Quickly control F.O.G.'s
- ✓ Speedily rectify C.O.D.
- ✓ Increase system functioning
- ✓ Improve water quality
- ✓ Eco-friendly
- ✓ Non-carcinogenic
- ✓ Non-pathogenic

#### Packaging, Shelf Life, Storage

Stable for 12 months at ambient temperature, out of direct sunlight. Available in 5kg and 20kg buckets.







## Wash & Wax Beco Oil™











Revolutionary bio-enzyme high performance extra foaming wash and wax shampoo for cleaning motor cars, trucks and trains which digests oils and hydrocarbons to address C.O.D. water effluent discharge for massive monthly savings.

#### **Description:**

Wash & Wax Oil Gobbler™ is an ecofriendly bio-enzyme high foaming special formula wash and wax product for cleaning motor vehicles, busses, trucks, trains and more. Untreated oil run off from vehicle washing is a huge problem for the environment, and fines from governmental water departments can be severe. Wash & Wax Oil Gobbler™ is completely unique in that it is formulated with bioenzymes to digest hydrocarbon effluent in sumps and drains to turn waste oils into water and carbon dioxide, solving all C.O.D. effluent discharge problems while avoiding costly fines.

#### **Features & Benefits:**

Wash & Wax Oil Gobbler™ is extremely simple and effective to use and is designed to easily remove vestiges of greases and traffic film that have become engrained with

particulate soils, in a way that is easy to clean and requires little mechanical assistance, saving the vehicle's top coat from abrasion. It leaves a well-drained surface after rinsing, while promoting sheeting off of water from the surface which minimizes streaking. Wash & Wax Oil Gobbler™ simply cleans better! Bio-remediation is the process of using bio-enzymes to clean far more effectively than solvent based cleaners while converting these hazardous oils and greases into carbon dioxide and water.

#### **Massive Cost Savings:**

Wash & Wax Oil Gobbler™ provides enormous multiple factor cost savings to organizations. It cleans quicker and more effectively, saving time and labour. It addresses water discharge effluent C.O.D. requirements by correcting waste water pollution, where solvent cleaners worsen the problem, and increase fines payable. significantly prolongs engine and vehicle component lifespan. It's a well-known fact that solvent based cleaners cause long term havoc with expensive rubber and plastic components in engines and on vehicles. The water-based formula in Wash & Wax Oil Gobbler™ solves this problem. Solvent cleaners also fade signwriting on trucks, busses and vehicles. This is another hidden cost to companies. Wash & Wax Oil Gobbler<sup>™</sup> avoids this problem.

#### **International Benchmark:**

prestigious international petrochemical company presented their current globally used microbe remediating product performance challenge the indigenous microbes Oil in Gobbler™. We showed an identical Total Petroleum Hydrocarbon (T.P.H.) degradation, while costing a fraction of the price. An unexpected showed Oil Gobbler™ microbes degrading waste at a staggering 20% faster rate with profound further cost, performance and environmental advantages.

#### **Enzyme Cleaning Explained:**

Oil Gobbler™ microbes are so powerful that they quickly remove even the heaviest build-ups of oil, grease and grime from the toughest environments, outperforming even the harshest solvent based cleaners. Beco-zyme microbes rapidly secrete massive concentrations of digestive enzymes to permanently convert hydrocarbons into water and carbon dioxide, in an ongoing and repeating process.

#### **Use & Dilutions:**

Wash & Wax Oil Gobbler™ should be diluted at between 1:150 and 1:250 depending on the condition of soiling. To help speed up remediation in oil sumps and effluent run-off waterways, in conjunction with Oil Gobbler™, a potent bio-enzyme degreaser for

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## Wash & Wax Beco Oil™









engines, wheels and under carriages. Avoid using with solvents and harsh chemicals. These chemicals can kill the good bacteria and enzymes generated by the Oil Gobbler™ range negating their effect in oil remediation.

#### **Applications:**

- ✓ Busses
- ✓ Trucks
- ✓ Trains
- ✓ Cars
- ✓ Motor Bikes
- ✓ Mines
- ✓ Taxis
- ✓ and much more

#### **Features of Product:**

- Remediates hydrocarbons into water and carbon dioxide
- ✓ Easily applied with buckets, brooms, mops, and highpressure spraying equipment
- ✓ Easily removes dirt, oil and grease from surfaces
- ✓ Compatible with all type oil / water cleaning systems
- ✓ Water based
- ✓ Leaves a protective shine
- ✓ Non-toxic, non-corrosive
- ✓ Reduces disposal costs

#### Packaging, Shelf Life, Storage

Stable for 12 months at ambient temperature, out of direct sunlight. Available in 5L, 25L & 1000L flow bins. Super concentrate available for simple self-manufacturing while saving greatly on shipping costs.

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