



Bio 8

TABLET INFORMATION SHEET

Innovation

Why it is innovative and achieves an advance over existing products / projects

The biological technology to treat large scale domestic and animal waste has existed for some time, but is not suitable for small scale use or on board small to medium sized vessels.

The problems are 4 fold:

- a) the existing products in liquid (or in some cases, powder) form are heavy and bulky to store.
- b) the huge amount of liquid product needed is expensive
- c) the liquid which contains the bacteria that break down the waste is susceptible to heat & cold. If added to a tank where the waste is at a low or high temperature, the bacteria will die on impact or at least renders it unable to multiply and digest waste.
- d) sludge forms at the bottom of tanks but the liquid treatment tends to float at the top, thereby reducing its potential effectiveness

Bio 8 uses new technology to harness the benefits of waste treatment products in a small, lightweight tablet form. The advances over the existing technology are evident:

- a) small, light to store
- b) cheaper
- c) the freeze dried bacteria rehydrate slowly at a wide range of temperatures so they do not die on impact but instead begin to multiply
- d) the tablet sinks to the sludge at the bottom of the tank, where other products cannot work due to lack of oxygen. Unlike current treatment products, however, the Bio 8 tablet contains all the oxygen the bacteria need to survive, thrive and multiply in this sludge
- e) the tablet also contains nutrients that ensure the success of the bacteria colony
- f) the tablet form means the bacteria, oxygen and nutrients dissolve slowly, releasing their action over a period of time, allowing the bacteria to thrive instead of competing for food so it can establish itself and start working
- g) the freeze drying of the bacteria gives an indefinite shelf life (until the tablet is hydrated), compared with about a year's shelf life of a liquid product.

Customer Benefits

- The most important benefits of these advances to customers

Clean water gives you a clear conscience!

- Eliminates the unpleasant odours and the impacts of these on the public.
- Foul odours are treated at source and not merely masked.
- Reduces the volume of waste sludge
- Simple to use – just one flush every week, or after every waste tank pump out, whichever is sooner.
- Tiny & lightweight to store, transport and handle. A pack of 8 tablets treats 48000L of waste (a competitor product that treats odours only, without breaking down the sludge, would use 16 x 5L containers to treat 48000L of waste)
- Cost effective (a typical odour treatment costs approximately \$220 to treat 6000L. One Bio 8 tablet treats up to 6000L at a cost of about \$4)
- One product treats black waste, grey waste & bilge tank odour
- Safe, natural, environmentally sustainable approach to waste problems
- Indefinite shelf life if stored correctly (liquid shelf life is usually about a year)

Technology

- The technologies or know-how which made the innovation possible

Bio 8 has resulted from years of research, testing and trials which have produced microbial strains that are effective in the treatment of human, animal and commercial wastewater. The combination of freeze drying those microbial strains together with the oxygen and nutrients they need to thrive, all in a new tablet format, has resulted in a remarkable, innovative product that is set to revolutionise sewerage treatment plants, domestic sewage tanks, the marine and farming sectors.