

Application Number : EOI-S- 68

Category : Sanitation related

Title : Sewage CARE Anaerobic septic tank treatment for fast decay of fecal matter

Current Stage of the Technology : Technology Commercialized/ Implemented

Estimated Capital Cost,If Quoted (In Rs): 15000.00

Waste Management : Both Solid and Liquid Waste Management

Cost Per Unit : A.(In Rs)2750.00

B. i. Capacity (Minimum) 0 Cost (In Rs)0.00

ii. Capacity (Maximum) 0 Cost (In Rs)0.00

Patent filed : No

Patent Application Number : --

Patent granted : No

Patent Number : --

Provide Video Link : --

Key Word : Septic tank treatmen

Summary of the Product : Waste that is not decomposed by the anaerobic digestion eventually has to be removed from the septic tank, or else the septic tank fills up and un-decomposed wastewater discharges directly to the drainage field. Not only is this bad for the environment but, if the sludge overflows the septic tank into the leach pit, it may clog the leach pit piping or decrease the soil porosity itself, requiring expensive repairs. This also can cause the ground water contamination which spreads hazardous waterborne disease. Sewage CARE Anaerobic is a high potency; bacteria-laden, powdered formulation specifically designed for use in anaerobic conditions e.g. septic tanks. Sewage CARE Anaerobic contains a specially isolated blend of microorganisms, micro/macronutrients, and surface tension suppressants/penetrants. Sewage CARE Anaerobic contains a unique and proprietary blend of microorganisms that are naturally occurring bacteria and works exceptionally well only in anaerobic conditions.

Design Capacity : Each pack of the Sewage CARE Anaerobic contains 100 grams of bacterial culture which accelerates the decay process of the fecal matter. Design Capacity can be defined as the individual home tank of 650 liters which is quoted at INR 15000 as basic cost without taxes and transportation is usable for 4 elder + 2 children home without scavenging ever. It needs dosing of one 100 gm pouch daily for first 7 days and then one 100 gm pouch every alternate month. The design capacity can be extrapolated.

Treatment Protocol : --

Post Treatment handling Protocol : Post treatment the water that overflows from the third section of the septic tank will be totally odorfree and fertile to be used for farming. If we have to recycle this water for flushing, we need to install a multimedia filter with suitable capacity, a

activated carbon filter and a liquid CLO₂/ ozone treatment unit. this will clear

Operations and Maintenance Cost and Protocol : There are three important things to maintain
1. no disposal of inorganic waste in the septic tank 2. do not use harsh cleaning chemicals. do not dispose medicines in the septic tank 3. precariously maintain the bacterial culture dosing schedule as prescribed based on capacity of the tank.

Certification of Product : The product is tested for toxicity at accredited test lab and we have applied for green product certification from CII pH range 6.5 — 8.5 Flash point Non - flammable Appearance Tan / white powder Bacterial Enzyme Production Protease, Lipase, Amylase, Urease, Cellulase Bacterial Count 4 X 10⁹ cfu's per gram

Ease of Operations and Management : --

Interference with Ecosystem : • Helps keep Sump Tanks, Septic Systems and Sewage Pits trouble free. • Reduces back-ups and pumping. • Reduces odors 95—99%, surface scum more than 80% and bottom solids by more than 50%. • Degradation of Fats, Oils, Grease, Starches, Proteins, Animal Fats, Triglycerides, Foaming • Surfactants, Soap, Phenols, Sludge & Amines • Reduction in BOD, COD & TSS

Test Trailed : Whether Test Trailed/Implemented : The toilet tank was bout 70 Cu. Meter. filled to about 80% capacity when we started the trial. BMC approved that the BOD, COD reduced to desired levels in 3 monmths

Competitors : --

About Innovator and Contributors : Uttam Banerjee studied Product Design at IIT Delhi and has won several awards for his designs. He is the CEO at Ekam Eco Solutions and oversees Product Management and marketing Sachin Joshi is a savvy engineering manager and has managed large projects at Crompton Greaves previously. He is the Co-founder and Director of Operations at Ekam. Mohan Kulkarni is a hard core micro biologist and passionate to turn the wrong to right in the ecological sanitation space

Contributors :

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