

Solids and Odor Control in Pit or Portable Toilets © 2012

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ECOPROBIOTICS®, of the Bacta-Pur® System, are beneficial communities of natural bacteria, which have been on earth for millions of years and have been selected for their synergistic ability to biodegrade pollutants and to improve water quality. ECOPROBIOTICS® increase biodiversity. Just as people take probiotic yogurt for its' ability to assure the presence of the optimal community for digestion and immunity, ECOPROBIOTICS® improve ecosystem health. EVERY PRODUCTION of Bacta-Pur® products is analyzed and cleared for shipment ONLY after passing all performance tests and being CERTIFIED PATHOGEN FREE using techniques from the food industry. ECOPROBIOTICS® are purely natural and beneficial; they NEVER contain added chemicals such as surfactants, emulsifiers or enzymes..., nor do they contain genetically modified (GMO) or deliberately mutated organisms. ECOPROBIOTICS® are safe and beneficial. Bacta-Pur® microorganisms are not subject to TOSCA (USEPA) and are listed on the DSL of Environment Canada.

Summary	
SYMPTOMS or GOALS	TREATMENT BENEFITS
• noxious odors coming from toilet	• control causes of noxious odors
• excessive mounding occurring in toilets	• reduce problems of mounding & solids accumulation
• high ammonia and/or putrefaction	• reduce ammonia liberation and putrefaction
• want to eliminate use of toxic products including formaldehyde	• natural treatment solution without use of toxins

Causes of Odors and Solids Build-up

The primary waste is feces, urine and paper. Fecal bacteria, under anoxic or partially anoxic conditions, reduce sulfate to hydrogen sulfide and cause conversion of urea, and protein to ammonia and the putrefaction of solids. The beneficial microorganisms capable of competing with the fecal organisms are lacking. The conditions in our intestines are obviously very different, from those in the toilet, in terms of pH and temperature to mention only two parameters. Natural water purification is largely dependent upon teams of water purifying bacteria, which do not grow in our intestines. When balanced teams of the beneficial microorganisms are present, one group of bacteria starts a process, which is then continued by others. Lack of members of the team results in less efficient treatment and production of noxious odors and accumulation of solids.

Why the Bacta-Pur® System is Effective

ECOPROBIOTICS®, by Bacta-Pur, contain seed stocks of balanced communities of beneficial bacteria selected for their ability to solubilize solids and to eliminate causes of noxious odors. Sludge solubilizing enzymes, which have been produced by the microorganisms, are already in the bottle, and more will be produced within the system as the microorganisms biodegrade the accumulated wastes. Bacta-Pur® is one of the most concentrated cultures available. Small regular doses are very effective.

Control of causes of noxious odors in portable toilets

Follow instruction below. Volumes can be adjusted based on size of toilet. If there are many toilets to treat, the mixture can be placed in the reservoir used to add liquid to the toilets. Do not use with toxic products, such as formaldehyde or quaternary ammonia, used to kill microorganisms. They are undesirable and not needed. A non-toxic colorant can be added for cosmetic reasons, if desired.

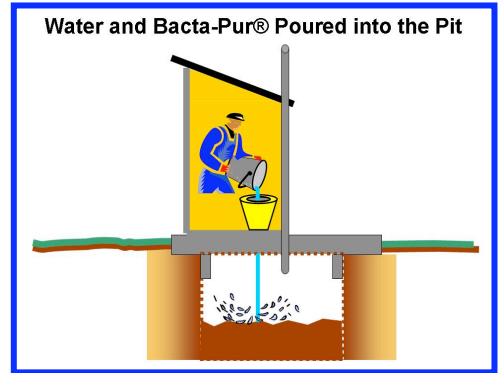


Add following products to water to be added to portable toilet:

PRODUCT	Quantity / L of water to be added to the portable toilet	Quantities for use in 20 L (5 gallons) of water, which is commonly added to portable toilets
Bacta-Pur® XLG	5 mL	100 mL (3.4 oz US)
Bacta-Pur® ACTIVATOR GS	2.5 mL	50 mL (1.7 oz US)
Sodium Nitrate (NaHNO ₃)	5 g	100 g (3.5 oz US)
Sodium Bicarbonate (NaHCO ₃) – baking soda	10 g	200 g (7 oz US)

Solids reduction in pit toilets

Regular use of Bacta-Pur® assures the presence of essential and beneficial bacteria producing the enzymes that help to liquefy the solids. The crust that forms on the surface of the pit will quickly break up. All you have to do is dilute the bacteria in water, and pour it over the surface of the pit. Recommended dosage rate is given below.



DOSES RATES & APPLICATION

- initially, add 4 L of Bacta-Pur® XLG to the pit or cement vault
- add enough water to cover the solids
- maintain system by adding 1 L Bacta-Pur® XLG or 0.5 L preactivated Bacta-Pur® XLG per week
- keeping the mound of solids moist improves treatment

NOTES: Contact IET-Aquaresearch Ltd for technical support.

The pit or cement vault should be pumped out prior to adding Bacta-Pur® XLG. If it is not possible to pump a pit or if the pit is nearly full, it is advisable to dig a fresh pit rather than attempt to rectify an old one.

Odor control compounds used by many companies are bactericidal and cannot be used in conjunction with Bacta-Pur®.

Campers and recreational vehicles can cause a problem, if their dumping into the holding tanks is not controlled. The chemicals used in many holding tanks on campers are bactericidal and if dumped into a pit or cement vault toilet can kill the beneficial microorganisms present in the Bacta-Pur®. The products for portable toilets can also be used in campers and RVs.

