

## Treatment of Commercial Septic Systems® 2013

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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.*

<b>Summary</b>	
<b>SYMPTOMS</b>	<b>TREATMENT BENEFITS</b>
• accumulation of scum & hair in drains	• maintain normally operating drains
• reduced percolation in leach field	• increase percolation and eliminate puddles due to poor drainage
• grease accumulation in tank and leach field	• biodegrade grease
• noxious odours coming from drains & system	• control causes of noxious odors
• excessive grease in drains and pipes	• reduce grease build-up
• pipes blocking, reduced flow rates in sinks	• increase flow in drain lines, avoid back-ups
• excess ammonia or lack of nitrification	• stabilize nitrification

### Causes of Problems

- The mixture of microorganisms needed to provide adequate treatment is not present in the tank or on the tiles and stones of the leach field. This is a common problem. Bacteria entering septic system are virtually only from digestive systems, where the conditions are very different than in a septic system. Digestive tract bacteria are stressed and die off outside of our bodies. There are no nitrifying bacteria in our intestines. Balanced communities of environmental cultures are required to optimize wastewater treatment.
- Cooking grease and fat have accumulated on the walls of the pipes and lines forming a gummy layer that will entrap solid particles causing a block in the line. Organic solids spilling over from the septic tank into the distribution box and the lines leading to the leach field have coated the distribution box and the lines from it with anaerobic mud that acts in a fashion similar to grease and fat. Grease should be added to trash and not poured down drains,
- The pores in the absorption field have filled with organic solids, grease, fat and anaerobic bacteria, so water is no longer absorbed into the ground. The lines leading from the septic tank, as well as the tank itself, are filled with solids and/or grease and fat so entering waste water has nowhere to go but to the surface.
- Excessive amounts of wastewater are present and decomposing anaerobically in all sections of the septic system. Water is surfacing and bringing odor with it.
- A combination of all the above is probably taking place. It is possible that a physical block in the line leading to the septic tank itself has occurred but that is unlikely to be a problem of accumulation, rather the presence of a root or stone, or a broken pipe that has collapsed.



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### **Why the Bacta-Pur® System is Effective**

Bacta-Pur® XLG and Bacta-Pur® N3000 contain communities of natural beneficial microorganisms, which have been selected for their synergistic ability to biodegrade the accumulated fats and proteins in the drainage field. Bacta-Pur® XLG digest grease sludge and reduces BOD. Bacta-Pur® N3000 provides nitrifying and denitrifying bacteria to convert ammonia to nitrate and then to reduce the nitrate to nitrogen gas, which is 80% of the air we breathe. Balanced communities of microorganisms, which improve water quality, are not available in municipal drinking water nor in our intestines. There is thus no way other than by bacterial addition to assure the presence of the essential team of beneficial microorganisms.

### **Preventive Maintenance with Bacta-Pur®**

Small doses will prevent expensive problems. Add Bacta-Pur® XLG at end of the day, to increase retention time in drains. Remember that grease should not be poured down drains, but should be put in the trash. The best way to treat a commercial septic system is with a BACTIVATOR® LS (for Bacta-Pur® XLG) and a BACTIVATOR® LSN (for Bacta-Pur® N3000). Contact IET-Aquaresearch to discuss your specific needs, which will be based on the nature of the commercial activities.

**NOTES:** Bacta-Pur® cultures will not dissolve roots, clay, silt, stones or plastic material. Therefore, if a blockage in the line is determined to be caused by this kind of material, it will be necessary to have the line opened mechanically prior to treatment with Bacta-Pur®. Bacta-Pur® cultures cannot improve percolation if the leaching field has been improperly installed such as below a water table.

A septic tank used in conjunction with a water softener may experience problems with the leach field due to inorganic salt build-up in the pores of the leach field. This build-up is the result of the regeneration of the softener with brine. During the regeneration process, the metal ions of calcium, magnesium, iron and other constituents of the local water are washed off of the softener and flow into the septic system. If they are not contained by the septic tank these metals will precipitate as their phosphates, hydroxides or sulfates and block the leach bed.



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