

TECHNICAL MEMORANDUM

GENERAL ECOLOGY, INC. "STRUCTURED MATRIX™" CERTIFICATION TO EPA GUIDE STANDARD FOR MICROBIOLOGICAL PURIFIERS



As indicated in a June, 2008 report, and in accordance with requirements for recurring periodic evaluations, General Ecology's **Seagull®IV** purification devices with RS-1SG cartridges have again been recertified to meet the **USEPA Guide Standard Protocol for Testing Microbiological Purifiers**. General Ecology's unique "Structured Matrix™" purification technology is the basis for all of its drinking water purification systems including **Versa-Pure®**, **First Need®** and **Nature Pure®** product brands. The most recent tests were conducted using three identical Seagull®IV 1 GPM systems. Results for the RS-1SG cartridge are particularly significant because this same purification element, in various sizes and configurations, is used in **Versa-Pure® AC2**, **Versa-Pure AC3** and **Seagull IV** units as well.

General Ecology, Inc.'s "Structured Matrix" technology tested and trusted worldwide is the most advanced purification technology available today, instantly and effectively providing microbiologically safe drinking water according to the EPA protocol referred to above. General Ecology water purifiers, by actually removing pathogens, also remove the toxins contained in the pathogens together with many pesticides, herbicides, industrial solvents, foul tastes and odors.

The latest tests were conducted at the University of Arizona's highly regarded, independent laboratories. All work was performed carefully in accordance with the current EPA Guide Standard and Protocol for Testing Microbiological Water Purifiers. The Purifiers were operated for 100% of the rated capacity and challenged periodically and simultaneously with high concentrations of bacteria, cysts and viruses. At the 60% and 75% test points the units were challenged with "worst case" water according to protocol. Additionally, the systems were allowed to stagnate for 48 hours after the 50%, 75% and 100% test points to assure that bacteriological growth through the matrix did not occur.

At the conclusion of the test series Dr. Gerba and Staff reported "the Seagull IV X-1 systems passed the EPA Guide Standard for all three classes of microbiological contaminants exceeding the recommended removal levels..." This was achieved without the use of chemical additives or multiple pass through.

Over all Percent and Log Reduction

Microorganism	EPA Required Reduction*	Test Results
<i>Klebsiella terrigena</i>	99.9999 (6 log)	>99.9999% 7.52 log
Poliovirus and Rotavirus	99.99 (4 log)	>99.99% 4.60 log
<i>Cryptosporidium oocysts</i>	99.9 (3 log)	>99.9% 3.39 log

* Percentages may vary according to number of organisms present in the influent challenges.

Seagull IV, Versa-Pure, First Need and Nature-Pure water purifiers are available at selected retailers or directly from General Ecology, Inc. For more information please visit the company's web page www.generalecology.com. Contact General Ecology, Inc. by email at info@generalecology.com, by facsimile at 610-363-0412 or by phone at 800-441-8166. For international phone inquiries, please contact 610-363-7900. Dealer and Distributor inquiries welcome.

All health claims not in accordance with local or state laws are hereby withdrawn.
©1999, ®™ registered trademarks of General Ecology, Inc. revC 0708