

AquaPak, A Solar Water Pasteurizer Now Ready for World Distribution

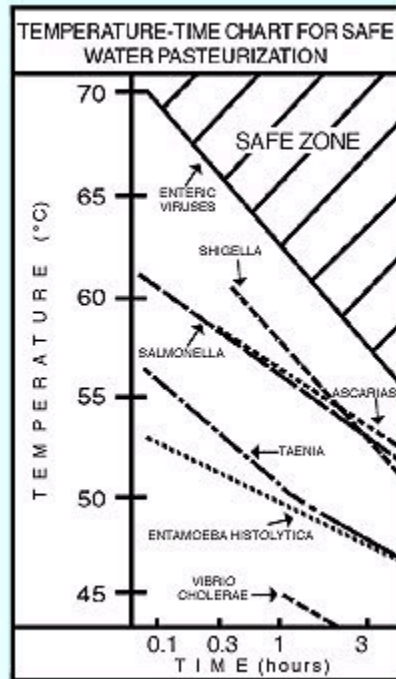
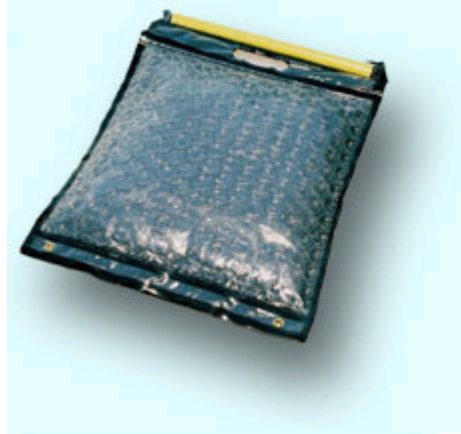
Solar Solutions Laboratories announces the release of a Solar Water Pasteurizer, called the AquaPak, that will cost as little as one dollar per unit to manufacture in third world countries. The AquaPak has the potential to save **thousands** of lives and significantly reduce illness among rural populations in nations where access to safe drinking water is scarce, because of pathogens (bacteria, viruses, and parasites, etc.) like cholera and salmonella that are found in the water

Pasteurization technology was invented by Louis Pasteur in 1867, but to date efforts to develop a small, extremely low cost, easy-to-use solar pasteurizer have failed to yield a viable solution for mass distribution. The AquaPak represents a significant breakthrough in this technology. Made from low cost polyethylene plastic (also used in food preparation boiling bags) with UV inhibitors added, and air-filled bubble pak sheeting (originally developed for the packing industry), the AquaPak can heat water to temperatures beyond 67 degrees Celsius, a temperature that will kill all waterborne pathogens (bacteria, viruses, parasites) using only sunlight. By maintaining this temperature for specified time periods, the AquaPak kills a variety of pathogens present in contaminated drinking water. The edges of the plastic layers are bonded using tapered seals so the AquaPak can pass a 10 foot drop test.

In tests conducted by BioVir Laboratories, San Francisco, CA, on virus contaminated water and by Environmental Engineering Laboratories, San Diego, CA, on bacterial pathogens, the AquaPak eradicated over 99.99% of the pathogens present.

Designed to be mass produced using labor in third world countries, the AquaPak can be manufactured for as little as one dollar [US]. The AquaPak employs a reusable sealed glass tube indicator—called a WAPI—filled with colored wax at one end that melts when heated to the required temperature, indicating the start of the pasteurization process. Depending on the availability of sunlight throughout the day, an AquaPak can produce up to 4 gallons of water per day, enough safe drinking water for a family of four.

Solar Solutions will seek to align this manufacturing technology with international government authorities and humanitarian health organizations, such as the Global Alliance For Africa, United Nations, World Health Organization,



Orange wax indicator as viewed through bubble insulation. When orange color disappears, the required temperature has been reached.



Orange wax in a sealed glass cylinder (WAPI) fits

the International Red Cross, the Peace Corps, World Vision and others. While US pharmaceutical companies are striving to provide affordable antibiotics to these poorer nations, the affected populations are frequently taking the medications with pathogen-laden water, which can cause diarrhea and death by dehydration. The AquaPak provides a realistic long-term solution by eliminating the reintroduction of the offending pathogens to the digestive system.

The AquaPak has been developed by the Thermal Applications Group at Solar Solutions Laboratories in San Diego, CA. Solar Solutions was founded in 1996 by inventor and entrepreneur, Frank Husson, to provide diverse solutions for global water purification through solar technologies.

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into the cap enclosure. The wax melts at a specified temperature to indicate the start of the pasteurization process.