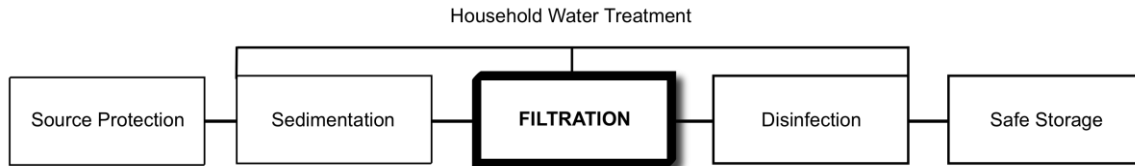


# Household Water Treatment and Safe Storage Product Sheet: Sawyer Point Zero Two™ Purifier

## Treatment Type



**Product Name:** Sawyer Point Zero Two™ Purifier filter

**Manufacturer:** Sawyer Products Inc., USA

### Product Description:

The Sawyer Point Zero Two® filter is a gravity membrane filtration technology that uses hollow fibre membranes to remove pathogens from water. It has a pore size of 0.02 microns, making it effective for removing viruses, bacteria, protozoa and helminths.

The kit includes a filter, hose, compression fitting, backwash syringe and a hole cutter for attaching the hose to the inlet water container. The kit does not include a container to hold the inlet water or a container to collect the filtered water. The kit is designed to be used with a plastic container, but other types may also work; water storage containers should not be a container that has ever been used to transport chemicals or toxic materials.

The filter membrane is located at the end of the outlet hose. To stop the flow, the hose and filter are raised up to the top of the inlet water bucket and hooked on a hanger (provided) until the next use.



**Sawyer Point Zero Two Filter (Bucket Not Included)**  
(Credit: [www.sawyerdirect.net](http://www.sawyerdirect.net))

**Availability:** Available online. Cannot be exported internationally through Sawyer Products. They recommend contacting an international logistic company for shipping outside of North America.

**Robustness:** The membrane filter doesn't need to be replaced; backwashing using the syringe when the filter clogs is all that is required to restore the flow rate. Water pre-filtration using a cloth and/or settling is recommended for turbid inlet water.

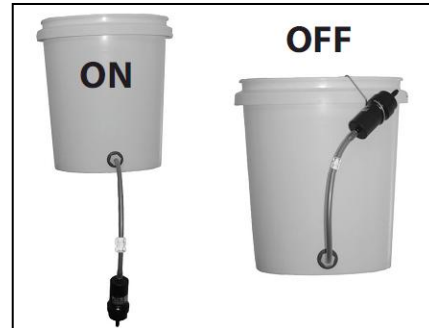
**Lifespan:** There is no field data available yet to estimate how long the filter will remain useable.

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**Approximate Dimensions:** Cylindrical filter: length 22 cm, diameter 7 cm. Plastic tube length: 90 cm (3 feet); other lengths are available.

**Approximate Weight:** 0.5 kg (1.13 lb)

**Output:** 13.6-15 litres/hour; 327 litres/day. Based on a 3-foot hose attached to a 5-gallon bucket at sea level.



Increasing the hose length, using a taller container or continuously keeping the bucket full will increase flow rate. Flow rate will be lower at higher altitudes.

**Sawyer Filter Operation**  
(Credit: www.sawyer.com)

**Cost:** Retail US\$145

**Maintenance:** Need to backwash filter using syringe provided in the kit when flow rate slows down. With relatively clear inlet water, backwashing is recommended every 3,800 litres. If inlet water is extremely turbid, backwashing is recommended every 40 litres or less.

## Treatment Efficiency

	Bacteria**	Viruses	Protozoa	Helminths	Turbidity	Chemicals
<b>Laboratory</b>	>99.9999% <sup>1</sup>	>99.999% <sup>2</sup>	> 99.999% <sup>3</sup>	100% <sup>4</sup>	N/A	N/A
<b>Field</b>	N/A <sup>5</sup>	N/A	N/A	N/A	N/A	N/A

N/A: Not available.

<sup>1</sup> Hydreion LLC, 2005. Test bacteria: Klebsiella. Results are for the Point One™ filter; the Point Zero Two™ filter should have as good or better removal based on pore size.

<sup>2</sup> Hydreion LLC, 2005. Test virus: MS2 coliphage

<sup>3</sup> Hydreion LLC, 2005. Test organisms: Cryptosporidium parvum oocysts and Giardia Lamblia cysts. Results are for the Point One™ filter; the Point Zero Two™ filter should have as good or better removal based on pore size.

<sup>4</sup> Helminth removal should be equal to or greater than bacteria and protozoa removal based on pathogen size.

<sup>5</sup> A field project implementation developed by Give Clean Water shows its applicability in the field. Available at: [www.sawyerpointonefilters.com](http://www.sawyerpointonefilters.com). The results from a field study in Bolivia are being analyzed.

## References

Hydreion LLC. (2005). Microbiological Testing of the Sawyer 7/6B Filter. USA. Available at: [www.sawyerpointonefilters.com/downloads/MicrobiologicalTest\\_HydreionLabReport\\_12-01-2005\\_76BFilter.pdf](http://www.sawyerpointonefilters.com/downloads/MicrobiologicalTest_HydreionLabReport_12-01-2005_76BFilter.pdf)

Hydreion LLC. (2005). Virus Removal Test of the Sawyer 7/6BV Filter. USA. Available at: [www.sawyerpointonefilters.com/downloads/PurificationTest\\_HydreionLabReport\\_1-6-2006\\_76VPurifier.pdf](http://www.sawyerpointonefilters.com/downloads/PurificationTest_HydreionLabReport_1-6-2006_76VPurifier.pdf)

Sawyer Products Inc (2011). Available at: [www.sawyerpointonefilters.com](http://www.sawyerpointonefilters.com). Accessed May 16, 2011.