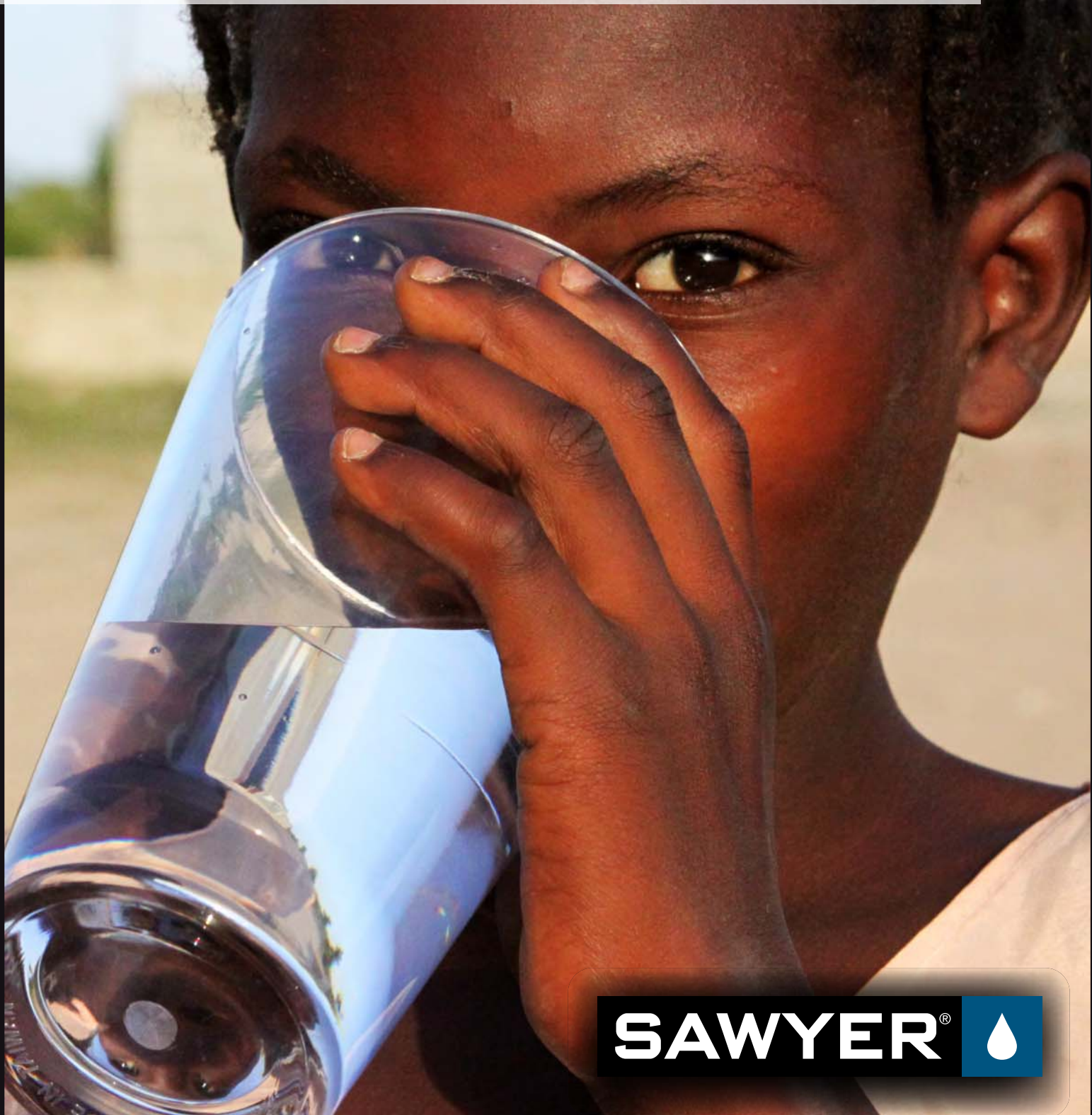


The fastest, easiest and most cost efficient way to get potable **WATER**



SAWYER[®]



A CLOSER LOOK:

THE TECHNOLOGY

Sawyer water filters use Hollow Fiber Membranes, a technology developed for kidney dialysis. Our filters are comprised of tiny "U" shaped micro tubes that allow water to enter into their cores through tiny micro pores. The pointONE Filter's™ pores are so small (0.1 micron absolute) that no bacteria, protozoa, or cysts like E.Coli, Cholera and Typhoid can get through. The filter attains the highest level of filtration available today at 7 log (99.99999%), while maintaining a very high flow rate due to the large amount of tubes. If viruses are an issue we offer the PointZERO TWO Purifier™ (0.02 micron absolute pores). This is the first (and thus far only) portable purification device to remove viruses mechanically. It does so at a >5.5 log (99.9997%) rate, exceeding EPA and NSF recommendations. Each filter is certified for ABSOLUTE microns. That means there will be no pore size larger than 0.1 microns in the biological filter and 0.02 microns in the viral purifier.

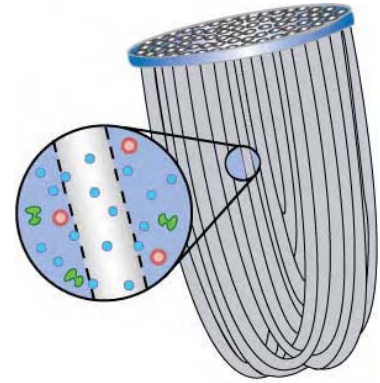


Diagram of a Hollow Fiber Membrane

WHAT IT REMOVES

	Waterborne Diseases	EPA Requirement	Exceeds EPA Recommendation	Removal Rate
Purifier ↓ Filter ↓ Purifier ↓	Bacteria which cause: Cholera, Botulism (Clostridium Botulinum), Typhoid (Salmonella typhi), Amoebic Dysentery, E. Coli, Coliform Bacteria, Streptococcus, Salmonella	99.9999% 6 log	Yes	99.99999% 7 log
	Protozoan (Cyst): Giardia, Cryptosporidium, Cyclospora	99.9% 3 log	Yes	99.9999% 6 log
	Viruses: Hepatitis A (HAV), Poliovirus, Norwalk, Rotavirus, Adenovirus, Hepatitis E (HEV), Coxsackievirus, Echovirus, Reovirus, Astrovirus, Corona Virus (SARS)	99.99% 4 log	Yes	99.9997% 5.5 log



A FEW OF THE

Key Features

Highest filtration rates available- At 0.1 micron absolute, it is impossible for any bacteria, protozoa or cysts to pass through the filter and at 0.02 micron absolute, it is impossible for viruses in addition to bacteria, protozoa and cysts to pass through the purifier. These are true barrier filters.

Simple design and construction- No more digging wells if there is water source, no constructing sand filters, and no more purification chemicals. Families are able to construct and adapt their filter to locally found containers in literally minutes. The kit includes everything you need to attach the filter to any plastic bucket or container. (Bucket not included)

1. Obtain a clean plastic bucket or container.
2. Use the hole cutter to drill a hole 1.5 inches from the bottom of the bucket. (This can be done by hand)
3. Screw the connector, hose, and filter onto the bucket.
4. Fill the bucket with water from any source, lower the filter head below the water line, and let gravity do the rest.

The kit comes with these items*:



Backwash syringe



Hose, filter and connector



Hole cutter

*items not pictured include a filter and detailed picture instructions with room for translation.

Extremely cost efficient- One system could provide clean water for a small village for pennies a day.

Fast flow- This is a POINT OF USE SYSTEM. The high flow rate eliminates the need to store water, which reduces the chances of water being contaminated after it is filtered. The only external force required for the system to function is GRAVITY. The 0.1 micron filter has a flow rate of about 1 liter per minute and therefore is capable of filtering over 1000 liters per day. The 0.02 micron purifier flows at an approximate flow rate of 0.5 liter per minute, yielding over 500 liters per day.

Easy maintenance- Maintenance of this filter is very simple: when the flow rate slows or the filter clogs, simply backwash it with clean water using the backwash syringe provided in the kit. The ease of operating this system makes it self-sustainable and dependable.

Multiple applications- These filters and purifiers make water so clean and accessible that people will not only use the filtered/purified water for drinking, but also for cleaning, bathing, cooking, watering plants and more.





Clean water for a whole country

Give Clean Water (GCW) is a non-profit organization whose mission is to change the world by providing clean water to every person on earth who needs it...and they are starting with the islands of Fiji.

Local community organizations in Fiji identified families in need of clean water. Community members and other volunteers then assisted in gathering biographical and demographic information from each recipient family, took photos and recorded the location of each home with GPS coordinates. On installation day, team members made up of local volunteers and Sawyer representatives visited homes, installed the filter and spent some time educating the family on how to maintain the filter. The teams also educated the family on basic hygiene and the importance of drinking and cooking exclusively with clean water.

In general, diarrhea and stomach pains are common problems throughout Fiji. Prior to receiving the filters the families' public water supply was contaminated with bacteria and protozoa because it was only filtered to 10 microns. Those families without access to plumbing get their water from a well, stream, borehole or rain collection device that is often MORE contaminated than the public water supply. Prior to receiving filters, the selected families were drinking the contaminated water and getting ill.

A follow-up study was conducted four months after 400+ families had received filtration units - - the results were exceptional. Each family was still using its filter on a regular basis, either everyday or every several days, depending on the size of the family and their water needs. When GCW visited each house that received a filter, none of the over 3,000 people to use the filter reported a single instance of waterborne illness since the filter was installed. Not only that, but severe floods arrived in the region not long after the filters were first installed. Families from neighboring villages that had yet to receive filters were able to obtain clean water by traveling to the homes of families with filters.

GCW continues to distribute filters to the needy families in Fiji until the whole country has clean water.

“Over 3,000 people reported that no waterborne illnesses have been contracted since receiving the filters”





Fighting cholera in Zimbabwe

GAIN is a multi-national network of ministries serving to demonstrate the love of God, through word and deed, to hurting and needy people around the world through relief and development projects.

Where they're working

Kadoma (population 81,000) is located in the Mashonaland West Province of Zimbabwe. The recent cholera outbreak especially devastated Rimuka, a high density location in the town where almost a quarter of the population lives.

Coupled with other problems, the erratic supply of water was one of the main causes of the epidemic. The town council had not been able to provide a continuous supply of clean water, leaving people to resort to digging wells in areas where the water is not safe for consumption. The sewer system had not been functional for months, and raw sewage flowing in the streets by the road sides has become a common sight.

Chegutu (population 50,000) is located about 107km from Harare in Mashonaland West Province and had a higher number of cholera casualties than Kadoma. The erratic supplies of clean water made it difficult to control and contain the cholera epidemic.

Hundreds of Sawyer filters were distributed to families, schools and orphanages in Zimbabwe to help combat the cholera outbreak. Where filters were received, cholera was wiped out.



This is Margaret Mhidza, who lives in the nearby communal lands in Chegutu. She is one of the people who had been directly affected by the Cholera epidemic. Her grandson who lived with her caught the deadly disease, and unfortunately lost his life. One of the local pastors called her in to receive this donation when he learned of her misfortune. She expressed tremendous gratitude and appreciation for the gift when she thanked the ministry for helping her prevent another member of her family from becoming a cholera statistic.



TO ANSWER YOUR:

FAQs

How long does the filter/purifier last?

They have an extremely long life, since the filters and purifiers can continuously be backwashed and re-used. In fact the filter/purifier membrane may never need to be replaced: when the flow rate slows or the filter clogs, simply backwash the unit with the provided backwashing device to clear out the pores.

How often do you have to clean or backwash the filter?

The frequency of cleaning depends on how dirty the water is. With relatively clear water, backwashing may only be necessary every 1,000 gallons. With extremely turbid or muddy water, backwashing may be required every 10 gallons. Nevertheless, backwashing is an extremely simple process and only takes a minute.

Can you backwash with dirty water?

We do not recommend backwashing with dirty water. If this happens, immediately run at least one quart of water through the filter and dispose before filtering water for consumption.

Can you put muddy water in the bucket?

Yes, though backwashing will be required more frequently. It will not alter the effectiveness of the filter to remove harmful pathogens.

How much water can be filtered/purified per day?

You have the option to get the pointONE Filter™ with either a 1 foot hose or a 3 foot hose. With the 1 foot hose, the filter can yield about 300 gallons per day while the 3 foot hose can yield about 500 gallons per day. The PointZERO TWO Purifier™ is capable of purifying about 200 gallons per day.

Do you recommend pre-filtering the water?

Yes, and we have three recommendations for pre-filtration. Option one, pour the dirty water through a t-shirt or cloth before it goes into the filtration bucket. Option two, cut the hole in the side of the bucket at least 1.5 inches from the bottom of the bucket to allow sediment to settle and not go down the hose. Option three, allow the dirty water to settle before putting it in the filtration bucket.

Do I have to use a plastic five gallon bucket?

You can attach the filter to any size container you can drill a hole in. We recommend attaching the filter to a clean container that is either food grade or was previously used to transport food items. Do not attach the filter to a bucket that was used to transport chemicals. The filter will also fit into most water crocks by removing the existing valve and replacing it with the fittings supplied with the filter. You can also hook multiple filters up to a large cistern or rainwater catchment system to yield even higher volumes of water, thanks to quick disconnects that detach the filters from the larger containers for backwashing.



FAQs continued

Do I need the pointONE Filter™ or the PointZERO TWO Purifier™?

To play it safe you can always take the pointZERO TWO purifier, but people in their natural environments typically only need bacterial protection because they build up immunity over time to the viruses they have been exposed to.

Will the filter/purifier remove chemicals, pesticides or heavy metals like arsenic?

No.

Will the filter/purifier remove salt?

No.

Do you need a power drill to cut the hole in the bucket?

No. You can cut the hole with the included hole cutter by hand.

Are the filters and purifiers tested and approved?

Our filters and purifiers have been tested by independent and qualified research laboratories according to EPA standards for water filters and purifiers.



What do you mean by 0.1 and 0.02 micron absolute?

Many other filters list nominal or average pore sizes which leaves the possibility that pathogens will be able to pass through some of the larger-than-average pores. By claiming absolute microns, there are no variances in pore size on our filter membranes. These are true barrier filters so there is no questionable time period whether the water is safe to drink.

Can I freeze the filter?

We have not been able to conclude definitively whether freezing will harm the filter. Therefore, we urge you to take the precaution of replacing any filter you suspect to have been frozen, especially if it was exposed to a hard freeze.

What agricultural applications does this have?

Not only can you use the filtered/purified water to water plants, but you can also install the filter in-line on a drip irrigation system to prevent the irrigation hose from clogging. The quick disconnects ensure that the filter can be removed easily for backwashing.



Visit pointonefilter.com for instructional videos, field data, testimonials and more

How your church can get involved

Planning any short-term mission trips?

Not only will these filters provide clean water to your volunteers during their short term mission trips, but you can also use these filters as a ministry opportunity.

Do you support churches overseas?

What if the local church was a distribution center for clean water? What an incredible opportunity to bring people to the church and share the Living Water with them while providing them with clean drinking water.

Does your church support missionaries?

Sponsor filters to send to the missionaries your church supports so they will have clean water and the ability to provide clean water to the people they serve.

Donate

We are currently working in over 50 different countries with numerous relief agencies and non-governmental organizations. Help by raising funds for these organizations to distribute these filters all over the world.



pointonefilter.com

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