Why Multi-Pure?

Concerned about the safety of your drinking water?

More than 30 years after the passage of the Federal Safe Drinking Water Act, the safety of our drinking water is often in the news and on consumers' minds.

Health-conscious consumers concerned about the safety of their drinking water are seeking water treatment devices that will allow them to control the quality of the water they drink. But, with thousands of drinking water systems to choose from, it's easy to understand why even the most savvy consumers have difficulty comparing one product to another.

Whether you are purchasing a drinking water system to improve the taste and odor of your water or are concerned about possible harmful contaminants in your drinking water, you want to be certain that the water treatment system you select will actually do what the manufacturer claims it will do.

Widely accepted industry standards make it easier for consumers to evaluate the many different technologies and systems available. This report will help you understand how consumers can compare drinking water treatment devices currently on the market.

What About Federal Standards?

Americans consider their water supply safe because the U.S. Environmental Protection Agency (EPA) monitors drinking water quality. However, the EPA has established standards for less than 100 contaminants found in drinking water supplies.

Federal law requires the public water utilities to provide consumers with a "consumer-confidence report." The water companies are required to tell consumers whether their water measures up to the established EPA standards. If standards have not been established, the water company is not required to monitor and report on those contaminants. Also, while certain contaminants found in your drinking water may be within "allowable" limits, that level of contamination may not be safe for vulnerable populations, such as children, the elderly, pregnant women and individuals with compromised immune systems.

The report may indicate that your water had safe levels of a contaminant, when it actually experienced potentially harmful spikes. The water utility's report is usually based on an annual average measurement, not on individual water samples.

A water quality report can't tell you about contaminants that can be introduced into the drinking water as it flows through the distribution pipes or in your own home -- such as lead from lead solder on pipes, asbestos used in distribution pipes, or harmful byproducts of chlorination.

What About Industry Standards?

Although the EPA oversees the safety of public drinking water supplies, it does not regulate the drinking water treatment industry. The EPA refers consumers seeking assistance in evaluating water treatment devices to NSF International, a not-for-profit organization which tests and certifies that products meet the requirements of its strict public health standards. NSF's standards and testing criteria are used internationally for consumer products and services including drinking water treatment units. The end result for the consumer is the assurance that the certified drinking water treatment system will do what its manufacturer claims it will do.

In addition to NSF certification, some states have established certification or registration requirements for drinking water treatment devices for which health claims are made. To date the states of California, Colorado, Iowa, Massachusetts, and Wisconsin have established some form of regulation for drinking water treatment devices.

What Are the Concerns?

The most widespread contamination problems causing consumers concern are:

Disinfection Byproducts (DBPs)

Disinfectants, such as chlorine and chloramines, which are used to kill microbes, form harmful byproducts (DBPs). Many of the DBPs have been found to cause potential health risks, including human cancers and birth and developmental defects.

Some 600 DBPs have been identified since 1974; however, scientists believe that represents only 50% of all DBPs that occur in chlorine-treated water and 17% of those occurring in chloramine-treated water. Of the identified DBPs, the toxicity is known for maybe 30%.

More than 90% of the population drink water that has been disinfected. The DBPs enter the water supply as it moves from the treatment plant through the distribution system to the kitchen tap.

Chemicals / Pesticides

More than 75,000 chemicals have been introduced to the environment over the past 60 years. And, the EPA has established national standards for fewer than 60 chemicals. Chemicals, pesticides, and herbicides have been linked to many diseases, including: cancers in humans; nervous system damage; liver problems; and reproductive problems.

Methyl-Tertiary-Butyl-Ether (MTBE)

MTBE, a controversial gasoline additive used for two decades, has seeped into groundwater throughout the country. MTBE does not breakdown easily and is difficult and costly to remove from groundwater. There currently is no federal standard for this possible human carcinogen.

Cryptosporidium & Giardia (Cysts)

These ***parasitic cysts*** are generally more resistant to disinfectants and are particularly harmful to persons with compromised immune systems. Cysts can be killed by boiling water or removed by filtration.

Lead

Water can pick up lead almost anywhere along the way from the treatment plant to the tap. Lead enters tap water through corrosion of plumbing materials.

Lead in drinking water can cause a variety of adverse health effects when people are exposed to it at levels above the maximum contaminant level (MCL) of 15 ppb. In babies and children, exposure to lead in drinking water can result in delays in physical and mental development; slight deficits in attention span; hearing problems, and learning disabilities. Adults who drink water contaminated with lead could develop high blood pressure.

Arsenic V

This naturally occurring toxin has been linked to several cancers and has been found to harm nerves, heart, and skin. Currently the EPA Standard for Arsenic V is 50 ppb. Water utilities have until 2006 to comply with EPA's new standard of 10 ppb.

Look for the NSF Mark

NSF International conducts comprehensive testing to give consumers the highest assurance that the water treatment system will perform according to the claims made on the packaging or literature. NSF certifies that:

- The system meets the contaminant reduction claims of the manufacturer;
- The system is not adding anything harmful to the water;
- The system is structurally sound;
- Advertising, literature, and labeling are not misleading;
- The materials and manufacturing process don't change.

To ensure that manufacturers continue to meet these requirements, NSF conducts unannounced inspections of manufacturing facilities once a year as well as periodic retesting of the products.

NSF Certified vs. Tested to NSF Standards There is a difference

Only if a product is NSF-certified can the consumer be certain that the product meets strict standards for design and performance. Many products claim they are "tested to NSF Standards;" however, these products haven't passed the rigorous NSF testing and certification process.

For more information, go to www.nsf.org

What Are The Industry Standards?

NSF International tests and certifies drinking water treatment devices to the standard appropriate for the technology of the product. NSF does not "rate" or "rank" water treatment systems, rather each system is tested against its own claims. For filtering devices, NSF may certify the product to improve the aesthetics of the water, the health effects of the water or both.

Aesthetic Effects (NSF Standard No. 42)

A drinking water treatment system may be certified under Standard 42 if the system aesthetically improves the water. This includes the reduction of **chlorine**, **chloramine**, and **particulate** reduction.

Chlorine Reduction:
A device can be certified for chlorine reduction by meeting the minimum level of reduction required by the NSF standard, which is only 10%. Be sure to check the literature to determine how much chlorine is reduced by the device.

Particulate Reduction:
Several classes are used to define the level of particulate reduction, ranging from Class VI for those devices removing coarse particulates of 50 micrometers and larger to Class I for drinking water treatment units that reduce the smallest (sub-micron) particles (0.5 to 1.0 micron).

Health Effects (NSF Standard No. 53)

NSF tests and certifies under this standard if a filter system reduces a significant amount of a specific harmful contaminant from drinking water. Such hazardous contaminants may be **microbiological** (including filterable cysts)**, chemical** (including DBPs, pesticides, herbicides, and insecticides)**, or particulate** in nature. NSF may certify that a drinking water treatment unit may be effective in controlling one or more of the health effects contaminants. By carefully reviewing the performance data sheet for a product, you will be able to determine whether the device is effective in reducing many pollutants or just a few.

Reverse Osmosis (NSF Standard No. 58)

The Reverse Osmosis (RO) technology is tested and certified under Standard 58. RO devices effectively reduce certain heavy metals, salts, and inorganics, including healthful, naturally-occurring minerals. Contaminants extracted through the Reverse Osmosis process are returned to the water supply. The process is slow and wastes about 3 to 4 gallons for every one gallon of water produced.

Distillation (NSF Standard No. 62)

NSF Standard 62 was developed for the Distillation technology which works very slowly and uses a lot of electricity. Water is heated to boiling and turns to vapor, leaving inorganic contaminants, including healthful minerals, behind. Chemicals evaporate along with the water and then recondense into a liquid state in the distilled water.

What About Bottled Water?

There is a perception that bottled water is "safer than tap water;" however the standards for bottled water, established by the Food and Drug Administration, are very similar to the standards, set by the USEPA, for tap water. In fact, about 25% of bottled water is actually tap water that has been processed and repackaged. Bottled water is expensive; bottled-water prices average about $2.84 per gallon. At that rate, 750 gallons of bottled water would cost $2,132.82. Filtering your own water with a drinking water system is certainly a more economical solution.

Price Comparison

	Bottled Water	Multi-Pure Water
Cost of 750 gallons	**$2,132.82**	**$69.95**

How do the Different Technologies Compare?

Carbon Block Filters

Multi-Pure's carbon block filters are considered to be the most effective method for reducing a wide range of contaminants of health concern as well as solving aesthetic problems. Multi-Pure's densely compacted carbon block filter mechanically intercepts particles as small as 0.5 micron (sub micron) as well as electrokinetically adsorbs particles. In addition, the carbon block filter has a large surface area for chemical adsorption to take place. The carbon block filter is a replaceable cartridge designed so that it can be easily changed. Some additional advantages of the carbon block filter are: it does not waste water; no electricity required; it does not remove beneficial minerals; and it does not add salt or silver to the water.

Granular Activated Carbon Filters (GAC)

GAC is only effective in trapping dirt, rust, sand and silt and removing objectionable tastes and odors. Water passes through a bed of loose carbon granules. Water can channel around the carbon instead of filtering through it.

Silver-Charcoal Filters (Bacteriostatic Filters)

Silver Nitrate, a known toxin, is added to a GAC filter to inhibit growth of heterotrophic bacteria; however, its effectiveness is questionable.

Reverse Osmosis (RO)

RO devices effectively reduce suspended and dissolved matter from water, including minerals which are essential to good health. RO systems do not remove all bacteria or chemicals. This process is very slow and may not filter as much water as you need at a time. The device may take up most of the space under your sink. RO can be expensive to maintain, requiring several separate replacement filters per year. An activated carbon filter usually accompanies an RO system.

Ceramic Filters

These devices are designed for mechanical filtration only. Ceramic filters do not reduce or remove any chemicals, pesticides, or herbicides, disinfection byproducts, or dissolved heavy metals.

Distillation

Much like Reverse Osmosis, Distillation removes all minerals. Distillers boil water and recondense the water vapor. This process is ineffective at reducing chemicals because they also vaporize along with the water. Distillation can only produce a few gallons of treated water a day. Distillation also uses a lot of electricity, making it an expensive process.

Water Softeners

Softeners are neither filters nor purifiers and are used only to change the water hardness.

The Multi-Pure Advantage

The internationally recognized standards established for the drinking water treatment industry confirm that the most effective systems for the treatment of a broad range of **AESTHETIC** as well as **HEALTH RELATED** contaminants are those that use carbon block filters. Since 1970, Multi-Pure Drinking Water Systems have been known to be the most effective point-of-use systems in solving all types of drinking water problems.

When comparing Multi-Pure Drinking Water Systems with other drinking water systems, it is helpful to determine which drinking water problems can effectively be solved by the devices being compared. It is important to understand that there are major differences between those devices which can solve taste/odor problems (AESTHETICS) versus those which effectively reduce contaminants being considered as established or potential health hazards.

What are the Questions you should ask?

When choosing a drinking water system, the consumer can rely on the NSF Listings to compare one device with another. Here are some important questions to ask when evaluating drinking water systems.

(Multi-Pure's responses to these same questions are also provided.)

1. **Is the product listed under NSF Standard No. 53, Health Effects or under NSF Standard No. 42, Aesthetic Effects or both?**
   Multi-Pure's Drinking Water Systems have been tested and certified under NSF Standard No. 42 and NSF Standard 53. Its RO System is certified under Standards 58, 53, and 42. In addition, the replacement filters for its Systems are also listed.

2. **Does the manufacturer or distributor provide a warranty?**
   Multi-Pure Corporation demonstrates confidence in its Drinking Water Systems by providing a Lifetime Housing Warranty (provided that the filter be replaced at least once a year), and a 12 month warranty on accessories.

3. **What is the product's flow rate?**
   Multi-Pure's Drinking Water Systems have a plentiful flow rate of 0.75 to 1.0 gallon per minute

5. **Is the device certified for VOC Reduction? A VOC listing includes 51 chemicals.**
   Some devices are listed to reduce only a few of the chemicals on the VOC list -- those that are easy to treat. These devices can not meet the more challenging test requirements for a VOC claim. Multi-Pure Drinking Water Systems are certified for VOC reduction plus other chemicals not included on the VOC list which are more difficult to to reduce, including PCBs, Toxaphene, Chlordane, and MTBE.

6. **What is the service cycle (gallons of water treated) of the device? How often will you need to change the filter and what will replacement filters cost?**
   Multi-Pure manufactures filters with capacities ranging from 600 gallons to 1600 gallons! It is recommended that filters be replaced: (a) annually; (b) when the unit's rated capacity is reached; (c) the flow rate diminishes; (d) the filter becomes saturated with bad tastes and odors. The CB6 filter costs $69.95; other models will range anywhere from about $60 to $110.

4. **What contaminants is the System certified to reduce? Be sure to ask for the product Performance Data Sheet which is required to be provided to all customers of drinking water treatment devices.**
   Multi-Pure Drinking Water Systems have been tested and certified by NSF International according to Standards 42 and 53 to reduce the following contaminants / substances:

Asbestos	**Chloramine**	**Chlordane**
Chlorine	**Cyst: giardia, cryptosporidium; entamoeba; toxoplasma**	**Lead**
Mercury	**MTBE (methyl tertiary butyl ether)**	**Particulate matter, class I**
PCB (polychlorinated biphenyls)	**Toxaphene**	**Turbidity**
Volatile Organic Chemicals (VOCs)		
alachlor	endrin	simazine
atrazine	ethylbenzene	styrene
benzene	ethylene dibromide (EDB)	1,1,2,2-tetrachloroethane
carbofuran	haloacetonitriles (HAN) includes:	tetrachloroethylene
carbon tetrachloride	bromochloroacetonitrile	toluene
chlorobenzene	dibromoacetonitrile	2,4,5-TP (silvex)
chloropicrin	dichloroacetonitrile	tribromoacetic acid
2,4-D	trichloroacetonitrile	1,2,4-trichlorobenzene
dibromochloropropane (DBCP)	haloketones (HK) includes:	1,1,1-trichloroethane
o-dichlorobenzene	1,1,-dichloro-2-propanone	1,1,2-trichloroethane
p-diclorobenzene	1,1,1-trichloro-2-propanone	trichloroethylene
1,2-dichloroethane	heptachlor	trihalomethanes TTHM includes:
1,1-dichloroethylene	heptachlor epoxide	chloroform (surrogate
cis-1,2-dichloroethylene	hexachlorobutadiene	bromoform
trans-1,2-dichloroethylene	hexachlorocyclopentadiene	bromodichloromethane
1,2-dichloropropane	lindane	dibromochloromethane
cis-1,3-dichloropropylene	methoxychlor	xylenes (total)
dinoseb	pentachlorophenol	

EPA establishment No. 074784-NV-001

The list of substances which the treatment device reduces does not necessarily mean that these substances are present in your tap water.

Not intended to be used where the water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.

Why Multi-Pure?

Commitment - Quality - Integrity

Multi-Pure Drinking Water Systems have been listed, certified and/or registered by the following, including all of the states that have certification programs:

- **NSF International**
- **California Department of Public Health**
- **Iowa Department of Public Health**
- **State of Wisconsin, Bureau of Building Water Systems, Research and Product Review Unit**
- **State of Massachusetts, Board of Plumbing**
- **State of Colorado, Department of Health, Drinking Water Program**

Consumers have been bombarded with deceptive manufacturer and sales claims making it more important than ever to refer to industry standards and state regulations which assure the effectiveness of the drinking water systems, that have been certified or registered, in reducing **aesthetic** substances and/or **health effect contaminants**. Multi-Pure's Drinking Water Systems have been tested since 1974, and NSF International's testing and certification further confirm the superior effectiveness of Multi-Pure's Systems, listed on the preceding page, in reducing a wide range of contaminants of health concern.

Furthermore, Multi-Pure continues to be a leader in developing new technology for the drinking water treatment industry. Among other accomplishments, Multi-Pure's carbon block filter was the first to be NSF-certified to reduce Lead, the first system certified to remove Asbestos, the first system certified to remove Cysts; and most recently, the first system, under Standard No. 53, certified to reduce Arsenic V!

Today, Multi-Pure is the world's largest manufacturer of compressed solid carbon block filters. Multi-Pure specializes in Drinking Water Systems and subsequently can assure that our customers will receive a product that meets their quality requirements.

Commitment

Recognizing that drinking water plays an important role in a healthy lifestyle, Multi-Pure remains committed to the drinking water treatment industry. We continuously invest in research and development and improve our products to solve current drinking water problems as well as emerging problems.

Quality

The quality of Multi-Pure Drinking Water Systems is unsurpassed. Our unprecedented twenty-five year warranty on stainless steel units confirms our confidence in the quality of our products.

Integrity

Multi-Pure is strongly committed to truth, honesty, and excellence. Testing and certification against NSF/ANSI standards confirms our confidence in the performance of Multi-Pure's carbon block filters. Most importantly, the effectiveness of Multi-Pure Drinking Water Systems is also confirmed by the millions of satisfied customers throughout the world who use Multi-Pure's carbon block filter technology to solve their drinking water problems.

When making a decision to purchase a drinking water treatment device, one should select a system that not only can solve the known problems of today, but also be a device that most likely will be effective in taking care of problems that may not be known today. When informed consumers compare Multi-Pure Drinking Water Systems with other units available on the market, they will confirm that Multi-Pure Systems are indeed the systems that can best meet their needs.

MULTI-PURE®

Multi-Pure Corporation
The Las Vegas Technology Center
7251 Cathedral Rock Drive
Las Vegas, NV 89128
800.622.9206 phone
Headquarters@multipure.com
www.multipure.com

BR160 (0511)

For more information, contact your Independent Distributor: