

Maintaining Water Quality in Your Rainwater Tank

It is important to ensure that the rainwater flowing into your water tank is filtered and of high quality, especially if used for washing clothes, drinking or cooking. To ensure your water is as safe as possible, this article will explore three important areas to keep in mind:

1. **Rainwater tank** – the water tank you use to store rainwater and how well it is maintained is extremely important.
2. **Rainwater catchment** – the roof or surface area used to harvest rainwater and connecting parts to your water storage tank.
3. **Plumbing, pipework and filtration** – the parts and plumbing connecting your rainwater tank to your house and any filtration systems.

Rainwater Tanks and Tank Maintenance

Rainwater tanks are constructed from a wide range of materials including polyethylene (plastic ideal for water tanks), galvanised steel, stainless steel, BlueScope's Aquaplate® or Zinalume® and concrete.

Many rainwater tanks made today are safe for storing water to be consumed, nonetheless you don't want to compromise. It is important to look for certification of the Australian standard, *AS/NZS 4020 – Products for use in contact with drinking water*.

You should verify a tank you are going to purchase is certified to this specific standard by asking the tank manufacturer to see their certificate, or certification number and the name of the independent organisation who certified their tanks.

Your water tank should also be of a material and colour that sunlight cannot hit the water. Ideally, your tank should be located in an area that is shaded and protected from the Sun most of the day. This will prevent algae growth.

When it comes to installing your rainwater tank, ensure your water inflow in has a strainer properly affixed to prevent mosquitoes, insects and debris find their way into your tank. Your overflow should also be screened to prevent frogs and the like finding their way up and into your tank.

Finally, maintaining your rainwater tanks required inspect inside your tank for evidence of mosquitoes, insects or algae every few months. In addition, every three years, if you do not have a [water tank cleaning device installed](#) then you should clean sludge that builds up at

the bottom of your water tank. This can be quite difficult and requires a special vacuum. We recommend that you hire a professional who is insured and can warrant their work.

Rainwater Catchment Area

In addition to maintaining your tank, it is also important to keep your roof and gutters in good condition. You should inspect and clean your roof, gutters, tank inlets and outlets, and screens every 6 months. Whenever you clean your roof, always disconnect the pipe from your tank first to ensure dirty water doesn't find its way into your stored rainwater.

As far as water tank accessories are concerned, there are several devices that you can install to collect higher quality water and reduce debris entering your tank:

- **Water diverters** are the main accessory people install. We recommend installing [downpipe water diverters](#). These *divert* the first litres of rainwater that collects dust and sediment away from your tank into a downpipe.
- **Rainwater heads** are also recommended, which are special strainers installed at the top of your downpipe that comes from your gutter.
- **Gutter guards** can also be installed along the top of your gutters to further reduce and debris, leaves, insects and the like.

Finally, your surrounding environment also impacts upon your water quality. Nearby vegetation or trees that have branches overhanging your house should be cut back to reduce leaf accumulation. This will also help reduce animals scampering across your roof.

If you live in an area with bats or lots of birds, and they happen to love flying over or perch on your house, then it is recommended that you more inspect and clean your roof more often. You should really install filtration and chlorinate your water.

Tank Fittings, Pipes and Filtration

The third area to ensure you receive quality rainwater safe to drink, is with your tank fittings, plumbing and filtration.

It is important that the fittings on your tank are made of food-grade materials. As with your rainwater tank they should comply with the Australian Standard *AS/NZS 4020 – Products for use in contact with drinking water*.

If you have a [steel tank](#) it is important to use fittings made from steel that is recommended by the manufacturer. Dissimilar metals will often corrode against each. For example, galvanised steel and copper are bad for Aquaplate and Zinalume steels.

PVC piping should also be approved for food. There are two types, ones that contain lead (to be avoided entirely!) and ones that do not. Lead is poisonous and harmful to babies and children who are still developing and can occur in steel tanks sometimes in the solders. So ensure your tank comes with an inner poly lining, and check to ensure every part complies with the AS/NZS 4020 standard.

Last of all, if your tank is plumbed in, then understand that the water pipes throughout your house are normally made from copper. Rainwater is quite acidic, and if left in copper pipes for an extended period of time, copper particles can leach into the water. It is therefore recommended that you flush the first 3 minutes of rainwater each day.

Installing Water Filtration is Highly Recommended

Due to dirty roofs and harmful micro-organisms or bacteria possibly entering into your, we really also recommend installing water filtration at your tap. The right filtration will prevent any contamination that you might be unaware of.

A dual cartridge filtration system is often the simplest solution, one to filter out particles like metals, industrial pollution and the like, the other to chlorinate to deal with any harmful bacteria and cysts in your rainwater.

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