

## for Disinfection, Odour Reduction and Biofilm Removal in Water Tanks & Pipes

*Hydro Pure* is an environmentally friendly agent for disinfecting and deodourising water tanks.

It can also be used for removing bio-fouling (slimy build up of bacteria on pipes).

Active ingredient - Hydrogen Peroxide [H<sub>2</sub>O<sub>2</sub>] – 50% by volume

**WARNING** – Hydrogen Peroxide is a very reactive chemical – read safety instructions included in this information brochure and those printed on the container label

Powerful - *Hydro Pure* is one of the most powerful oxidizers known -- stronger than chlorine, chlorine dioxide, and potassium permanganate.

Safe - Despite its power, *Hydro Pure* (H<sub>2</sub>O<sub>2</sub>) is a natural metabolite of many organisms, which decompose into oxygen and water. Consequently, H<sub>2</sub>O<sub>2</sub> has none of the problems of gaseous release or chemical residues that are associated with other chemical oxidants. And since H<sub>2</sub>O<sub>2</sub> is totally miscible with water, the issue of safety is only one of concentration.

**When *Hydro Pure* breaks down in water, the only by-products are water and oxygen.**

### Tank Disinfection



Water stored in tanks comes from a variety of sources. Rain collected water is generally biologically safe if the roof, guttering, tank and distribution system is relatively clean and is kept as such. However, organic matter, faecal matter, dead animals and birds can all introduce bacteria very quickly into rain collected water and this is where *Hydro Pure* is very useful as a periodic disinfectant and deodourising agent.

Water drawn from other “open” sources such as streams, rivers and lakes (shallow bores and aquifers) is also susceptible to biological contamination and while *Hydro Pure* can be used for the periodic maintenance of stored water, more permanent disinfection systems should be discussed with your water treatment specialist. ***Hydro Pure* is not to be used as a regular means of disinfecting water.**

Water drawn from deep bores is generally biologically safe although other chemical and physical problems can be encountered with water from this source.

### Handling, Safety and First Aid

- ❑ *Hydro Pure* is stabilized hydrogen peroxide and is therefore extremely stable. **Store only in original vented container.** Never return any solution taken from the container, back into the container.
- ❑ Ensure adequate ventilation and an ample water supply (for thorough flushing of accidental spillage of concentrate on personnel or property) are on hand when handling *Hydro Pure*.
- ❑ Always dilute any spills of concentrated *Hydro Pure* with large volumes of water.
- ❑ Wear rubber gloves and immediately wash with water, any spills of concentrate on the skin or clothing.
- ❑ Always wear eye protection (preferably goggles) and if contact is made with concentrated *Hydro Pure*, immediately (remove any contact lenses) flush with clean water for at least 15 minutes.
- ❑ If concentrate is accidentally swallowed, take as much water as possible to dilute. Do NOT induce vomiting. Give additional water if vomiting occurs. **Seek Medical attention immediately.**

## When to Dose with *Hydro Pure*

- if household members are getting stomach cramps, diarrhoea, or gastroenteritis
- if fecal matter is found on the roof or if there are often opossums or birds on the roof
- if dead animals or birds are found in the guttering or in the storage tanks
- if the water is unused for some time (holiday homes, wool sheds, musterer's hut, etc)
- if there are unpleasant tastes or if there are musty, earthy odours in the water
- if water from an unknown or suspect source is added to the tank
- after cleaning of the storage tank or after plumbing work has been undertaken (shock dose – see below)

### **ROUTINE & SHOCK DOSING RATES FOR *HYDRO PURE* (in parts per million or ppm)**

**Dosage Guide**                      **20ppm = 20ml of *Hydro Pure* to 1,000 litres of water**

**35ppm = 35ml of *Hydro Pure* to 1,000 litres of water**

(e.g. to dose a full 22,000 litre (5,000 gallon) tank to 35ppm; add 770ml of *Hydro Pure* [35ml x 22])

For routine disinfection of clean, stored water treat with suspected contamination –

- dose to 20 ppm of *Hydro Pure* solution

If contamination is known to have definitely occurred (physical evidence of contamination and/or humans with physical symptoms as described above) –

- dose to 35 ppm of *Hydro Pure* solution

If water clarity is suspect (looks a little cloudy or has minute particles floating in it) –

- dose to 35 ppm of *Hydro Pure* solution

**Shock Dose** – use after cleaning storage tanks, for clearing bio-fouling (bio-film) or for disinfecting after plumbing work or when new pipes are installed –

- dose between 150 – 200 ppm *Hydro Pure* solution (make sure solution is drawn into pipes)

Leave as long as possible and then flush thoroughly. **DO NOT DRINK FROM THIS CONCENTRATION**

- ☐ ***Hydro Pure* requires good mixing when put into large volumes of water. Recirculate water through a pump back into tank for 15 minutes or stir with a large, clean paddle or board.**
- ☐ **If water is particularly turbid or cloudy, it should be filtered first to avoid all the strength of the *Hydro Pure* solution being exhausted in oxidising the organic matter rather than disinfecting bacteria.**
- ☐ ***Hydro Pure* is not a “full time” disinfectant. Never dose more frequently than weekly. Seek more permanent disinfection solutions for ongoing biological problems.**

## Tank Volume Guide

**Square Tank** (measure in metres, volume is in litres)

Volume = length x width x depth of water x 1000

**Circular Tank** (measure in metres, volume is in litres)

Volume = diameter x diameter x depth of water x 785

e.g. a circular tank with a diameter of 1.4 M and a water depth of 1 M =  $1.4 \times 1.4 \times 1 \times 785 \approx 1,500$  litres

1 Imperial Gallon = 4.5 litres (5,000 gallon tank = 22,000 litres)

1 litre (L) = 1,000 millilitres (ml)



# Pleated Filter Maintenance

## to ensure maximum filter life



### DO NOT BRUSH

*Brushing can:*

- *cause tears and holes in the pleats*
- *force matter further into pleats*
- *add further biological contamination*

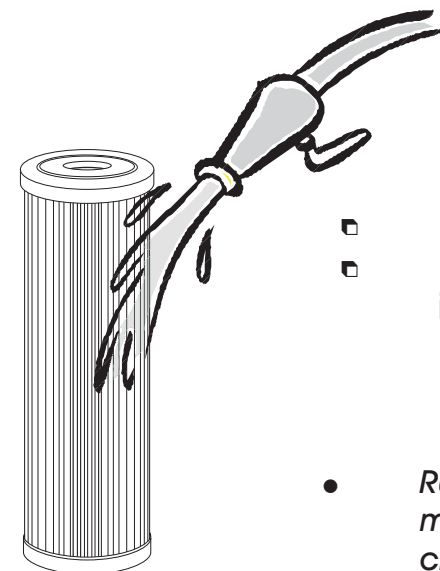


### CLEAN & DISINFECT

- ▣ Use a plastic bucket sufficient to hold full filter length (or half the length and flip filter)
- ▣ Add no more than ½ tsp *Hydro Pure* to the bucket
- ▣ immerse filter for at least 30 minutes

*Cleaning with Hydro Pure:*

- *Oxidizes organics*
- *Deep cleans pleats*
- *Disinfects*
- *Breaks down into natural components*



### RINSE

- ▣ Rinse pleats with stream of water (at an angle)
- ▣ If not replacing immediately, wrap in cling film or place in plastic bag and store in a cool, dark place.

### Hint

- *Running & swapping two pleated filter makes for easy maintenance & cleaning (ie you can put in the fresh filter while cleaning the other - and still have a running supply!)*

Mr Notso-Happy



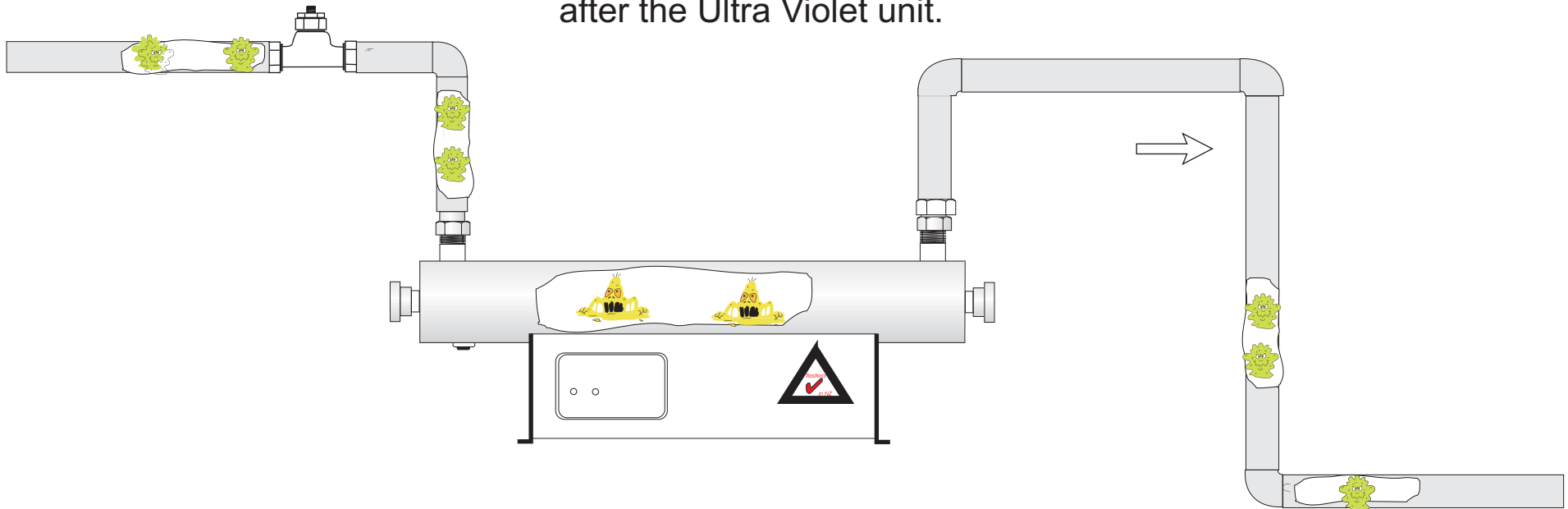
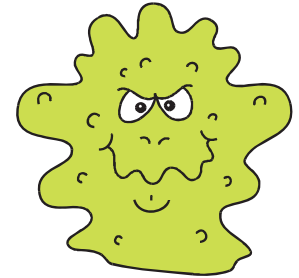
**FACT.**

Any Installation fitted with the appropriate Ultra Violet unit will destroy all bacteria's & viruses as they get exposed to the UV.

**FACT.**

Ultra Violet does not destroy any bacteria & viruses existing in the pipe work & tanks past after the Ultra Violet unit.

Mr Happy



**We strongly recommended that when any new Ultra Violet installation is completed, Then a powerful oxidizer like “*HydroPure*” is used to ensure that any contamination within the reticulation system is removed.**