

Huwa-San TR-50: High Level 1000ppm Peroxide

Disinfection of Commercial Water Systems



What: Huwa-San TR-50

Where: Commercial Water Systems. By 'commercial', we mean water tanks between 200L and 10000L in volume. So, places such as large Nursing and Care Homes, water treatment companies and councils.

When: This is an OFFLINE disinfection. The water should not be in use while this is being carried out. This is for a high level disinfection using 1000ppm peroxide. It should be done when the disinfectant can get at least 1 hours contact time with the pipework. Ideally the longer contact time the Huwa-San can get with the pipework the more effective it will be.

Why: Huwa-San TR-50 disinfects water systems and kills legionella bacteria. There are no strict rules as to how often you should disinfect your water system, but we would recommend that you inspect the system annually and disinfect if required. This ensures that your property remains HSG 274 Part 2 compliant. (The Control of Legionella Bacteria in hot and cold water systems)

How:

Step 1) You first of all need to know how much water you are disinfecting. You do this by finding the volume of the cold water tank, the calorifier and the pipework combined. **Tank:** the volume is normally printed on the label; if it is not then you have to multiply the length x height x width to get the volume. **Calorifier and pipework:** if you have a calorifier, multiply the tank volume by 1.3... if you do not have a calorifier, multiply the tank volume by 1.1. This gives you the volume of the entire system.

Step 2)

Water system volume	Amount of Huwa-San TR-50 needed ml/litres	Bottles of Huwa-San TR-50 needed
200 litres	400/0.4	1
500 litres	1000/1	1
1000 litres	2000/2	1
5000 litres	10,000/10	1
10000 litres	20,000/20	2

Step 3) Isolate the tank from the mains water supply, drain then thoroughly, manually clean the inside. Residue can be removed with a wet & dry vacuum cleaner.

Step 4) Fill the cold water storage tank with fresh water and dose the tank with the recommended amount of Huwa-San TR-50.

Step 5) Open the hot and cold taps **furthest** from the cold water tank and let the water run until a level of 1000ppm peroxide is obtained.

Step 6) Check the water from these taps with a 0-1000ppm peroxide test strip. You are looking for hydrogen peroxide levels of more than 1000ppm, so use the colour guide on the test strips to help you.

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Step 7) If the test strip shows hydrogen peroxide levels of more than 1000ppm, great – you can now draw the Huwa-San TR-50 through the entire system by opening up hot and cold taps, checking that each has a hydrogen peroxide level of more than 1000ppm. Flush all of the WC's too. If the test strip shows hydrogen peroxide levels of less than 1000ppm, you need to add more Huwa-San TR-50 to the water tank and repeat. A lower hydrogen peroxide level indicates a dirtier water system.

When adding more Huwa-San TR-50, the general rule is this, if the test strip shows hydrogen peroxide levels of:

System Volume	Peroxide 250ppm (further peroxide addition in ml)	Peroxide 500ppm (further peroxide addition in ml)	Peroxide 750ppm (further peroxide addition in ml)
200	300	200	100
500	750	500	250
1000	1500	1000	500
5000	7500	5000	2500
10,000	15000	10000	5000

Step 8) After checking all outlets are showing 1000ppm or more, the furthest outlet should be rechecked. After at least 1 hour contact time then the level should be reduced to 100ppm peroxide. Further contact time can be beneficial.

NOTE: In the first 12 hours after disinfection, you may notice discoloured water or pieces of biofilm coming through taps. This will subside.

Huwa-San TR-50 Health and Safety

SAFESOL advocates the use of appropriate safety equipment when using any chemical. Please refer to the MSDS sheet prior to use.

In hospitals, never do an Huwa-San TR-50 disinfection if there is a dialysis unit or laboratory linked to the water system or if there is the possibility of Huwa-San TR-50 getting into the water supply to these units.

Before using any chemical, you should always reference your in-house Risk Assessments and Method Statements.