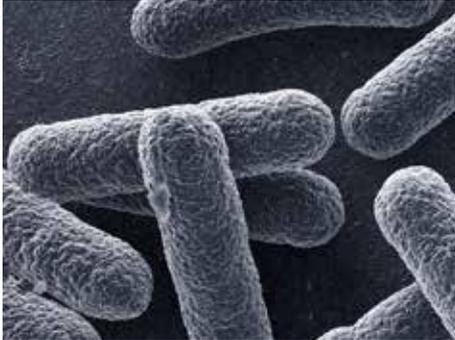


HOW TO AVOID BACTERIAL CONTAMINATION



What causes biological contamination in systems?

Algae in feed and expansion cisterns

Leathery skins or films of algae on the surface of expansion cisterns in open vented systems are caused by fungal mould growths. It occurs when the expansion cistern is not properly covered causing dust, insects and spores to be able to enter the water.

Underfloor heating systems are also susceptible to microbial growth due to the lower temperatures at which these systems operate.

Gas in the system

Microbiological fermentation in a system could result in flammable gas. Methane gas, which burns with a blue flame, is most often found. Hydrogen sulphide (emitting a 'bad egg' smell) may also occur, and is associated with the presence of corrosive sulphate-reducing bacteria.

Bacterial or yeast infestations caused by organisms entering the system from the supply water; debris in new systems or through air contact in open expansion cisterns can also occur.

What should be done?



To combat algae in open vented systems, empty the cistern and disinfect with **Fernox AF-10 Biocide** or **Fernox LP Sterox**. Refill the tank, adding the correct dose of AF-10 Biocide (refer to the instructions on the container) and top up the concentration levels of Protector F1. Ensure the tank is fitted with a purpose-made lid to prevent future contamination of the tank.

When there is gas in a system, use Fernox AF-10 Biocide to control microbiological growths and prevent gas build-up. Where contamination is significant, several repeat doses of biocide may be required: in such situations, it may be appropriate to drain and retreat the entire system.



Bacterial contamination in air and ground source heat pumps

When there is bacterial contamination in air and ground source heat pumps, **Fernox HP Cleaner** can be used.

Before use, it should be diluted using no more than 600 litres of mains water per one litre of HP Cleaner (equivalent to 600 metres of 40mm pipework). The ground collector must be flushed out with

fresh mains water before being filled with the diluted product. Having circulated the HP Cleaner for at least one hour, after which it should be flushed out until the water runs clear. Fill the ground collector with **Fernox HP-5 / HP-5c or HP-15 / HP-15c** depending on the level of frost protection required.