



# TREATING THE HOT WATER

## **SANIKILL** PATENTED TECHNOLOGY

Monochloramine Disinfection

Sanipur has patented the use of Monochloramine Treatment on the Hot Water application and is able to apply this technology to all potable water systems.

The following information will outline why this disinfection approach is effective in; microbiology, chemistry, and economics

# Why we should dose monochloramine directly on hot water circuit?

1. Microbiology
2. Chemistry
3. Economics





## Microbiology

keeping equilibrium

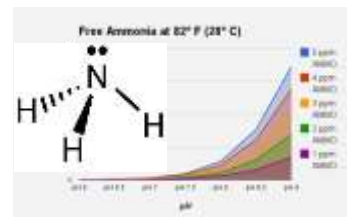


- It's demonstrated by the literature that dosing monochloramine (MCA) on cold water, as MCA is a mild oxidant, can break the equilibrium between bacteria. Particularly if free ammonia is allowed to form.
- Bacteria, such as mycobacteria, start to colonize as nitrogen becomes a food source for them. This bacteria and others are dangerous for immunosuppressed patients.
- You may be trying to solve a Legionella problem but creating another (mycobacteria) problem.



## Chemistry

preventing by-products



- Why dose any additional chemicals in drinking water if is not necessary? The water is treated and tested by the provider. The Legionella colonize in the hot water.
- Dosing MCA on cold water without direct control in domestic hot water loops generates a considerable amount of free ammonia in the hot water dramatically increasing corrosion rates and providing nutrients for bacteria.
- Adding excess free chlorine in an attempt to prevent free ammonia formation generates cancerous disinfection byproducts (THM and HAA5)

## Economics- *less is more*

- Treating cold drinking water means consuming reagent chemicals at more than ten to twenty times the rate with no real benefit to Legionella remediation!



Cold



Hot

- \$100,000.00 → \$10,000.00

Chemical Cost