



blue steel

water treatment systems

free2col has been developed to meet the clean water challenge of the future by combining centuries old knowledge with state of the art technology. Its active ingredient, Copper Sulphate, is well known as a disinfectant, but cannot be used on its own for drinking water supplies, since it combines readily with naturally occurring carbonates in the water to form insoluble salts. These then precipitate, and the copper no longer has any anti-bacterial effectiveness. Bacteria and other organisms immediately begin to regenerate and flourish.

free2col gets round this problem by placing the copper into a proprietary non-toxic carrier, which stays in solution indefinitely. It does not evaporate, precipitate, or noticeably lose its biological effectiveness, and does not require any special handling.

free2col works on the principle that micro-organisms, such as bacteria, cannot tolerate the presence of elemental copper, since it binds to the enzymes necessary to maintain the organism's metabolism. Unable to metabolise properly, the organism's cell dividing properties cease to function. **free2col** is very easily absorbed by these organisms, and effectively eliminates them as infective agents.

free2col disperses readily in water, and then stays in solution. The recommended dose is 1 drop for 3 litres which results in a concentration of 1 ppm of elemental copper, and at this level, **free2col** will rid the water of viable cholera, streptococcus or salmonella bacteria in a minimum of thirty minutes.

Where water is of poor bacteriological quality, we recommend increasing the dose to 3 ppm.

free2col has undergone extensive testing and verification. Its formulation has been classified as 'GRAS' (Generally regarded as safe) by the US Food and Drug Administration, and its effectiveness has been proven in numerous qualified laboratories.

Re-Dosing

Unlike Chlorine, which reduces in effectiveness over time, particularly in high ambient temperatures, **free2col** remains stable in solution. The only need to re-dose is therefore based on consumption from water tanks and continuous supplies.

Storage and Handling

Do not store at temperatures below 5°C. **free2col** is acidic and prolonged exposure to the skin should be avoided. If handling large quantities, wear protective clothing and eye protection. It should not be spilt on clothing, and any spillages should be washed out with clean water.

First Aid Measures

free2col should not be swallowed undiluted. In case of eye contact, flush thoroughly with water. If ingested undiluted, drink copious amounts of water and do not induce vomiting.