



guardians of drinking water quality  
DRINKING WATER INSPECTORATE

## Blue water and copper pipes

### What is it?

A blue colour in drinking water is rare but when it happens it is due to corrosion of copper plumbing. The blue colour indicates that there are quite high levels of copper in the water. The problem only occurs where there is relatively new copper plumbing.

The blue colour will disappear when the tap is run. If exceptionally the colour persists then you should contact your water company to arrange for an inspection of your plumbing. The water company can test your water and provide advice on how to improve your water quality.

### Is it harmful?

Copper is an essential nutrient but consumption of very high levels can cause stomach upsets (copper poisoning) however, at these levels the water will also look and taste very unpleasant and consumers will reject it. The drinking water standard is 2 mg/l which is well below the level that would affect water quality or cause health effects.

### How to prevent blue water

Blue water is usually caused by unsuitable plumbing, for example, when excess flux or the wrong type of flux is used to join pipes and fittings. Another risk factor is when water is left to stagnate in the newly installed pipes following pressure testing and before occupation of the property. Most recorded cases relate to large public buildings or new housing estates. Blue water is not known to occur when work is undertaken by qualified plumbers and water company approved contractors who will use only approved materials and procedures.

It is known that blue water is less likely to occur if:

- minimum quantities of flux are used;
- new pipes are immediately flushed very thoroughly;
- water is not left to stand or get warm for long periods in new pipes;
- the installation is drained down when it is not put into immediate use.



### **Blue deposits on taps, showers and toilet pans**

This is a more frequent problem which may occur in hard water areas when new copper pipes are installed in kitchens and bathrooms. In the first few weeks of use, the hardness scale may have a blue/green colour. This will stop after a few weeks once the plumbing settles down and becomes conditioned. The problem can be kept to a minimum by making sure that all new plumbing is put into daily use. Always avoid leaving water standing for long periods in new pipes. The blue coloured deposits can be removed using household anti-scaling cleaning products.

Last updated: January 2010

