



DŴR CYMRU
WELSH WATER

CUSTOMER INFORMATION

Aluminium in drinking water

Many people know that aluminum can be found in water - but how many know that it can also come from such sources as tea and indigestion tablets? In fact where aluminium is present in water, it represents only three to four per cent of the average person's total intake. But why is aluminium found in drinking water, and more importantly, is it safe?

Aluminium is widely present in the soil and so may be found in some untreated sources of drinking water. This naturally occurring aluminium may be removed by carefully controlled processes at water treatment works. Since 1989 there has been an enormous modernisation programme at our treatment works which has now been completed. This included new processes as well as other improvements.

Aluminium compounds are also used to remove impurities at water treatment works, and are particularly useful in reducing the colour, cloudiness and bacterial content of water before the final stages of treatment and disinfection. A very small amount of aluminium can be added in the treatment process and a very small "residual" amount may stay in the water supply. In order to keep the amount of aluminium remaining in the treated water at a level well below the permitted standard of 200 microgrammes per litre, the Company has installed equipment to improve and control the treatment process. We always ensure that the aluminium levels are kept as low as possible.

Iron based treatment chemicals can perform the same job as aluminium compounds and are already successfully used at many large treatment works in Wales, from which nearly a third of the Company's total output of treated water is produced. However, many of the remaining works either do not have raw water which is suitable for treatment with iron, or do not have the appropriate treatment equipment available.

The legal standard for aluminium in drinking water has been set at 200 microgrammes per litre. In 1989 the Department of the Environment produced the "Drinking Water - Health Report" which advised that following concern about the possible link between aluminium in water and Alzheimers disease, there was no need to change "current good practice regarding the use of aluminium compounds". The report also said that the current levels of aluminium in water supplies did not pose a health risk. It was stated that in area where the water supplies exceeded the aluminium standard of 200 microgrammes per litre, the "intake of aluminium from water would still be lower than the average intake from food, and well within the limit established for the intake from all sources by the World Health Organisation/Food and Agriculture Joint Expert Committee on Food Additives".

The Company is committed to minimising the use of aluminium compounds in water treatment and therefore the aluminium content of drinking water. Research into this subject is continuing and any developments are regularly reviewed by medical advisors.