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I A W R



Internationale
Arbeitsgemeinschaft
der Wasserwerke
im Rheineinzugsgebiet

The IAWR position on traces of MTBE / ETBE in our waters

The International Association of Water Works in the Rhine Catchment Area (IAWR) is an umbrella organization for three regional organizations:

- **AWBR – Arbeitsgemeinschaft Wasserwerke Bodensee – Rhein**
- **ARW – Arbeitsgemeinschaft Rhein-Wasserwerke e. V.,**
- **and the RIWA Vereniging van Rivierwaterbedrijven**

On behalf of around 30 million people in the Rhine area, these organizations together represent the interests of around 120 water supply companies in the six riparian countries Austria, Switzerland, Liechtenstein, France, Germany and the Netherlands.

The aim of the IAWR, which is recognized as an NGO (Non Governmental Organization) is to protect the Rhine, its tributaries and the prealpine lakes, so that the quality of waters is good enough to allow drinking water to be produced using only natural methods.

Against this background, the IAWR position on MTBE / ETBE is as follows:

Facts:

For a number of years now, lead has been prohibited as a gasoline additive and legal limits are steadily reducing the content of aromatic compounds. Methyl tertiary butyl ether (MTBE) and, increasingly, ethyl tertiary butyl ether (ETBE) are used as replacements. These are added in concentrations of up to 15% to prevent engine knocking. Both substances can enter the environment and may contaminate bodies of water through evaporation during filling, incomplete combustion in engines, accidents during storage and transportation as well as flows into the sewage system.

Both MTBE and ETBE are highly soluble in water, are very mobile in soil and ground water and are very persistent. This means that low concentrations of these substances are today found in ground water and in bodies of surface water.

MTBE and ETBE are not currently classified as toxic. However, the two substances are hardly broken down by microorganisms at all. Consequently, they are regarded as ecological contaminants that cannot be completely removed during the treatment of drinking water or sewage using normal methods. For this reason, MTBE and ETBE are very relevant to drinking water supplies. They make it impossible to meet the goal of supplying drinking water that is free of man-made substances when using natural treatment methods.

In Germany, MTBE was used almost exclusively until very recently. Due to the tax stimulation of biological components in fuel, ETBE has been used increasingly since 2004. This bioethanol component is exempted from the German mineral oil tax. According to EU guidelines, the percentage of biocomponents in fuel will increase to 5.75% in 2010. This means that a sharp increase is expected in the quantities of ETBE used.

In the USA, massive cases of ground and drinking water contamination have led to MTBE being banned as a fuel additive in several states. There, ethanol is being discussed as a potential alternative.

In order to warn of existing deficits and current threats, the IAWR uses its own monitoring network to track many substances and groups of substances in the source water such as MTBE, ETBE, plant protection chemicals, complexing agents, pharmaceuticals, biocides, etc. Since 2004, the IAWR has made intensive efforts to prevent MTBE and ETBE from entering the Rhine and has been in constant contact with the responsible authorities.

The waterworks joined together in the IAWR have set out clear demands in their 2003 Rhine memorandum for the sustainable protection of water quality. The presence of MTBE and ETBE represents the contamination of bodies of water with undesirable and unnatural substances that are relevant to drinking water production.

Position and demands:

- The IAWR stresses that unnatural substances such as MTBE and ETBE should, as a basic principle, be kept out of bodies of water as a precaution and to ensure good ecological quality.
- The IAWR believes that the properties of MTBE and ETBE and their behaviour during the treatment of drinking water represent a danger to the goal of supplying drinking water that is free of man-made substances when using only natural treatment methods.
- The IAWR calls for MTBE and ETBE to be replaced quickly with other substances that represent less or no danger to the environment and for the favourable tax treatment of ETBE to be abolished. Possible additional costs should not be an obstacle in view of the interests of our waters and the quality of our drinking water.
- To complement this and offer an alternative, new technologies should be developed for the production of gasoline and petrol engines to make the addition of MTBE and ETBE unnecessary.