

# **How can one define objection and rejection of drinking water tastes and odours in water supply?**

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## **Abstract**

Water utilities throughout the world feel accountable for maintaining the palatability of their drinking water when the quality changes. Some highly soluble, off-odour or off-taste chemicals, which are not a toxic threat, may enter the water supply. In such cases, it is helpful to develop a method to determine when consumers will object to drinking the water and complain to their water utility and outright object to drinking the water. Then water utilities can set their own levels of treatment to minimize this problem. Objective drinking water methods do exist with ASTM and ISO testing procedures for threshold and recognition odour or flavor determinations. However, no standard accepted tests or guidelines have been standardized for subjective, hedonistic testing of consumer objection or rejection of drinking water. How can water utilities determine the concentrations where people will object to or reject their drinking water?

This paper will describe some approaches to developing such tests and the problems associated with hedonistic testing of drinking water. The pitfalls and problems of this endeavor will be described. A suggested protocol will be presented from the outcome of different approaches for future standardization. Three case studies using odourant problems of MTBE, ETBE and odorous spills in drinking water will be used to help define the protocol.