

Abstract

Chlorophenols belong to major environmental pollutants and are characterized by their considerable toxicity, persistence and bioaccumulation. For their bactericidal and fungicidal properties have multiple uses. They are readily formed during water chlorination process and cause sensoric defects of drinking water. Thus they are posing a serious health hazard. Chlorophenols also occur in nature in minor amounts due to natural activity.

The presence of chlorophenols in water samples is determined by various analytical methods. In this work, emphasis is placed on their determination by gas chromatography. The model assay was performed for 2-chlorophenol and 4-chlorophenol using derivatization and subsequent extraction with a final analysis by gas chromatography with electron capture detection. The limit of detection for 2-chlorophenol was 2.47 $\mu\text{g/l}$ for 4-chlorophenol 3.14 $\mu\text{g/l}$.

Key words:

Chlorophenols, determination chlorophenols, degradation, toxicity