



## **Method Summary**

### **Determination of Free Formaldehyde in Water**

#### **Scope and Range**

Samples of waters and wastewaters are measured for formaldehyde by colorimetric analysis over the range 0.5 - 10.0mg/l with a detection limit of 0.5 mg/l. This method has been validated for surface water and is un-accredited.

#### **References**

NASH, T (1953) Colorimetric estimation of formaldehyde by means of the Hantzsch reaction Biochem. J., 55:416-421  
Formaldehyde, LCK 325, Handbook of Photometrical Operation Analysis, Dr Lange.

#### **Principle**

Preparation and Extraction:

Samples must be homogenised, sub-sampled, filtered, pH checked and clear prior to analysis.

Analysis:

Formaldehyde reacts in aqueous solution with ammonium ions and acetylacetone to form a yellow dye diacetyldihydrolutidine (DDL), which is measured photometrically at 413nm.

#### **Interferences**

The high selectivity of the method almost excludes interferences from other aldehydes. Strong oxidising agents may interfere.

Colour and sediment may interfere these may be removed by the addition of activated charcoal and filtering.