Formaldehyde - Purpald® Method

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Applications and Industries

Industrial process waters, wastewater; Disinfectant applications; NOT applicable for seawater

References

Purpald®, developed by Aldrich Chemical Co.

Chemistry

In a strongly alkaline solution, and in conjunction with the oxidizing agent persulfate, formaldehyde reacts with Purpald to form a purple colored complex in direct proportion to the formaldehyde concentration. Results are expressed as ppm (mg/L) CH_2O.

Available Analysis Systems

Visual colorimetric: CHEMets® and VACUettes®

Safety Information

Safety Data Sheets (SDS) are available upon request and at www.chemetrics.com. Read SDS before using these products. Breaking the tip of an ampoule in air rather than water may cause the glass ampoule to shatter. Wear safety glasses and protective gloves.

Storage Requirements

Product should be stored in the dark and at room temperature. High temperatures can cause the ampoule reagent to expire prematurely. Glass-like crystals in an unused ampoule are an indication of reagent deterioration.

Shelf Life

When stored in the dark and at room temperature:
The CHEMets and VACUettes refills have shelf lives of 5 months. Color comparators and accessory solution Cat. No. A-4202 have 2-year shelf lives.

NOTE: Persulfate (Cat. No. A-4201) is supplied as a dry chemical with no expiration date. After reconstitution with water as per test kit instructions, the persulfate solution has a shelf life of 6 months.

Interference Information

This test procedure is somewhat temperature dependent. Extremely high or low temperatures may affect the rate of the reaction, causing erroneous results. For best results, samples should be less than 40° C.

Strong oxidizers may cause false positive results, and strong reducing agents may cause low test results.

The chemical reaction occurs at a high pH, so sample pHs below 4 or samples buffered to a low pH may not develop the proper color.

Aldehydes other than formaldehyde may interfere by reading positively or by developing a different color with the reagent.

Samples with high dissolved solids content may cause the reagent to precipitate.

This chemistry is not applicable for the analysis of seawater samples.

Accuracy Statement

CHEMets and VACUettes kits: ± 1 color standard increment.