

# Formaldehyde

For water

MBTH Method

## Introduction

Formaldehyde is used in the treatment of fabric in textile industries, in metal plating baths, as a preservative for biological tissues and as a disinfectant in dialysis and reverse osmosis equipment.

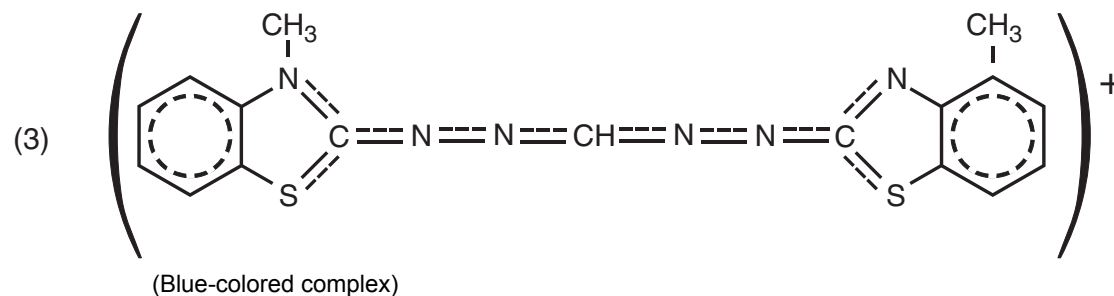
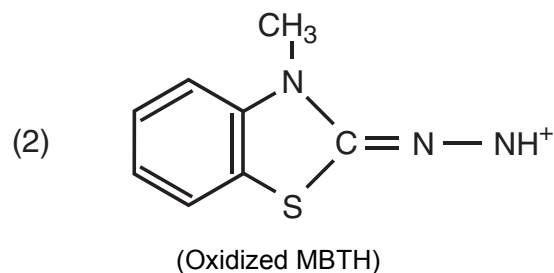
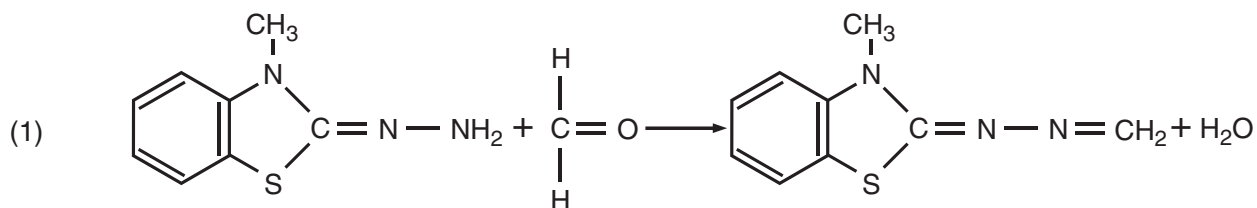
The MBTH Method is a sensitive colorimetric test for low range measurement of aldehydes; it is most sensitive for formaldehyde.

## Chemical reactions

### MBTH Method

MBTH (3-methyl-2-benzothiazoline hydrazone) is added in excess to a sample containing formaldehyde, triggering multiple reactions. First, MBTH and formaldehyde react to form an azine (1). Excess MBTH is oxidized by addition of a developing solution (2). Oxidized MBTH reacts with the azine to form a species with an intense blue color (3). Intensity of the blue color is proportional to the original concentration of formaldehyde.

MBTH is contained in MBTH Powder Pillows. Liquid reagent for oxidizing excess MBTH is contained in the Developing Solution for Low Range Formaldehyde.



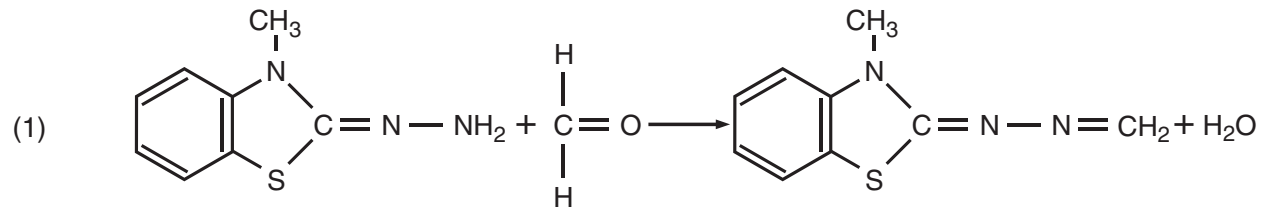


Figure 1 Chemical reaction for the MBTH method