

# Formic acid

## General:

Formic acid (formiate) is a metabolite of formaldehyde, methanol and other chemicals. Exposure to these substances can result in increased formic acid concentration in urine. The physiological secretion of formic acid into urine is up to 30 mg/mg, the mean daily intake from food is 0.4-1.2 mg. Formaldehyde is used for the production of building materials (chipboards, parquet flooring seals, adhesives, colors, wallpapers) and is also detected in cigarette smoke. Formaldehyde causes irritations of mucous membranes of the eye and bronchial tract already at low concentrations. It is oxidized by erythro-cytes and the liver to formic acid with a half-life 1.5 minutes, the renal elimination is approx. 30%.

Indication: Exposure to formaldehyde, methanol, methyl ether and methyl ester

Material: 10 ml urine

TAT: 7-10 days\*

Method: photometry

Units: mg/l

Ref.- range: up to 15.0

Note: High concentrations of formic acid are produced by enterococci (citrate metabolism) and Escherichia coli in urine under anaerobic conditions, e.g. in urinary infections or non-symptomatic bacterial colonization in the bladder. Adding glacial acetic acid prevents false increased levels caused by bacteria.

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>