

OMOTAYO FAITH

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18/mhs01/301

MEDICAL LABORATORY  
SCIENCE

### Assignment

1. Write on the purpose of fixation
2. List 5 compound fixatives and composition

### Answer

1. The purpose of fixation is the preservation of biological tissues from decay due to autolysis or putrefaction . During fixation and the steps that follow there are substantial changes to the composition and appearance of cell and tissue components and these are quite far removed from the ideal "life-like state"

There are five major groups of fixatives, classified according to mechanism of action:

- Aldehydes
- Mercurials
- Alcohols
- Oxidizing agents
- Picrites

2.

## B5

Ingredients: Mercuric chloride

sodium acetate

DI

Formaldehyde.

## Formal calcium

Ingredients:

- 40% formaldehyde: 100 ml
- Calcium chloride: 10 g
- Distilled water: 900 ml
- Fixation time: 12–24 hours

## Zenkers Solution

Ingredients: Mercuric chloride

potassium dichromate

sodium sulfate

DI

Acetic Acid.

## Phosphate buffered formalin

Ingredients:

- 40% formaldehyde: 100 ml
- Distilled water: 900 ml

- Sodium dihydrogen phosphate monohydrate: 4 g
- Disodium hydrogen phosphate anhydrous 6.5 g
- The solution should have a pH of 6.8
- Fixation time: 12 – 24 hours

### **Zinc formalin**

#### **(unbuffered)**

Ingredients:

- Zinc sulphate: 1 g
- Deionised water: 900 ml
- Stir until dissolved then add –
- 40% formaldehyde: 100 ml
- Fixation time: 4 – 8 hours