

Tissue swelling may occur. 5. Toxic and volatilizes at room temperature producing harmful vapour. This vapour is toxic to the eye and respiratory tract. 6. Expensive. ☞ Secondary fixation: Following fixation in formalin it is sometimes useful to submit the tissue to second fixative e.g. mercuric chloride for 4 hours. It provides firmer texture to the tissues and gives brilliance to the staining. ☞ Fixation Artefact: Formalin pigment: Insoluble brownish-black granular retractile birefringent pigment due to reaction of formalin with hemoglobin derivatives. ● Mercury pigments: Dark-brown irregular deposit. ● Fuzzy staining: Due to improper fixation. ● Prolonged fixation: Shrinkage of the tissue causes tissue separation and empty spaces. ☞ Formalin Pigment ● Colour: Brownish black. ● Position: Extracellular granules. ● Mechanism of formation: Formic acid reacts with hemoglobin derivatives of the blood and produces acid formaldehyde haematein. ● How to avoid: Use buffered formalin. ● How to remove: Treat with 1.8% picric acid in absolute ethyl alcohol for 15 min.