



U.S. Corporate Headquarters  
400 Valley Road  
Warrington, PA 18976  
1(800) 523-2575 / (215) 343-6484  
Fax: 1(800)343-3291  
Email: info@polysciences.com  
www.polysciences.com

Polysciences Europe GmbH  
Handelsstrasse 3 D-69214  
Eppelheim, Germany  
+(49) 6221-765767  
Fax: +(49) 6221-764620  
Email: info@polysciences.de

## TECHNICAL DATA SHEET 866

Page 1 of 1

# Bouin's Fixative (*Bouin's Fluid*)

## DESCRIPTION

Bouin's fixative consists of picric acid, formaldehyde and acetic acid. The primary use of Bouin's fixative is for lymph nodes, prostate biopsies and kidney biopsies however, it can also be used for decalcifying bones with the addition of formic acid. Bouin's fixative preserves tissue detail well and will not destroy morphology when the bone specimen is left in solution for several days or weeks. The addition of 25% ethanol to the Bouin's can be used for adipose rich tissues, such as breast. Bouin's fix stops the chromogenic substrates very effectively and also helps remove some of the trapped background stain. It stains tissue yellow. This yellow stain can be removed with multiple washes in buffered ethanol or PBS-Tween. Current protocols suggest that several changes of 70% ethanol are used to wash the tissue until the yellow color disappears. Do not use Bouin's to fix before in situ since unable to detect RNA at all. Fix small specimens for at least 6 hours, and other specimens can be fixed up to two days. Large specimens can be fixed for up to three days. The specimen is usually kept in Bouin's for 24 hours and then transferred to 70% alcohol. If the tissue is still yellow in the paraffin block, put the hydrated sections in something weakly alkaline to remove residual picric acid, then wash well with water before staining. Retained picric acid interferes with some stains, including those used for blood cells. Bouin's fixative is the primary mordant solution in the trichrome stains.

If red blood cells are of interest, don't use Bouin's fluid for fixation because it damages them. Use neutral, buffered formaldehyde instead.

## CAUTION: CARCINOGENIC CONTAINS FORMALDEHYDE, IRRITANT, TOXIC

## REAGENTS: Bouin's Fixative

Saturated picric acid - 3000.0 ml  
Formaldehyde - 1000.0 ml  
Glacial acetic acid - 200.0 ml

## PURPOSE

Bouin's is generally used for testicular fixation because it preserves nuclei and chromosomes especially observes well during meiosis. Formalin is a more general fixative, used widely for other tissues when mitotic or meiotic cycles are not necessary to observe. Also used as a mordant for staining procedures.

## FIXATION TIME

For small biopsies fix in 2-4 hours, for large specimens may remain in fixative for a maximum of 72 hours

## PROCEDURE

1. Fixed tissue may be retained in 10% formalin or 70% alcohol
2. Prior to staining, remove the picric acid from the tissue by
  - a) washing in tap water
  - b) grades of alcohol (50%)
  - c) or 70% alcohol saturated with lithium carbonate.

## SAFETY

Work in a well ventilated area, wear gloves, lab coat and goggles. Avoid contact and inhalation. Picric acid can become explosive if allowed to dry out. Toxic through skin exposure.

**Formaldehyde** - Severe eye and skin irritant. Sensitizer by skin and respiratory contact. Toxic by ingestion and inhalation. Target organ effects on respiratory system. Corrosive. Carcinogen. Label with **FORMALDEHYDE WARNING** label.  
**Acetic Acid** - Target organ effects respiratory system (Corrosive)

## STORAGE AND HANDLING

### Storage

Store at room temperature

### Handling

Glove, chemical goggles & fume hood

### Reference

1. Carson, F, Histotechnology: A Self-Instructional Text, pp 19, 1st ED, 1992, ASCP Press
2. Crookham, J, Dapson, R, Hazardous Chemicals in the Histopathology Laboratory, 2nd ED, 1991, Anatech

## ORDERING INFORMATION

Cat. #	Description	Sizes
16045	Bouin's Fixative (Bouin's Fluid)	1L, 4G

Order online anytime at [www.polysciences.com](http://www.polysciences.com)

## TO ORDER

In the U.S. Call: 1(800) 523-2575 • (215) 343-6484  
In the U.S. Fax: 1(800) 343-3291 • (215) 343-0214  
Germany Call: +(49) 6221-765767  
Germany Fax: +(49) 6221-764620