

Subject:

HOLLANDE'S FIXATIVE

PURPOSE: Primary fixative for G.I. and prostate biopsies. This fixative gives a brilliant hematoxylin and eosin stain, it "softens" the tissues eliminating cracked brittle sections. The picric acid will lyse out the red blood cells. Lillie states it is a good fixative for bone marrow biopsies, the acetic acid decalcifies.

REAGENTS:

Copper acetate (cupric)	75.0 gm
Distilled water	3000.0 ml
Picric acid	120.0 gm
Formaldehyde	300.0 ml
Glacial acetic acid	45.0 ml

Dissolve copper acetate in water without heat, add picric acid slowly, stir until dissolved. Add formaldehyde and acetic acid. Label with date and initials

CAUTION: CARCINOGENIC/IRRITANT/CORROSIVE

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.

FIXATION TIME: Small specimens 2-4 hours, larger specimens up to three days.

PROCEDURE:

1. Biopsies are placed immediately in Hollande's fixative, the time is noted on the specimen container.
2. When fixation is complete the specimen is retained in 70% alcohol.
3. Do not allow Hollande's fixed specimens to come in contact with phosphate buffered formalin, a blue precipitate (artifact) occurs.

REFERENCE: Lillie, R.D., Fullmer H., Histopathologic Technic and Practical Histochemistry, 4th E., pp 61, McGraw-Hill, N.Y.
Carsons F, Histotechnology: A Self-Instructional Text, 1st Ed, 1992, p 19, ASCP Press
Crookham,J, Dapson,R, Hazardous Chemicals in the Histopathology Laboratory, 2nd ED, 1991, Anatech

Prepared: _____ By: _____

Approved: _____ By: _____

HOLLANDE'S FIXATIVE

Copper acetate (cupric)	25.0 gm
Distilled water	1000.0 ml
Picric acid	40.0 gm
Formaldehyde	100.0 ml
Glacial acetic acid	15.0 ml

Dissolve copper acetate in water without heat, add picric acid slowly, stir until dissolved. Add formaldehyde and acetic acid. Label with date and initials. Stable for 1 year.

CAUTION: CARCINOGENIC CORROSIVE

Toxic by inhalation and if swallowed. Irritating to the eyes, respiratory system and skin. May cause sensitization by inhalation or skin contact. Risk of serious damage to the eyes. Do not allow the picric acid to become dry, it could become explosive. May cause cancer, contains formaldehyde. Repeated or prolonged exposure may increase risk.

DATE: _____

TECH: _____

EXPIRATION: _____