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.
Crookham,J, Dapson,R, Hazardous Chemicals in the Histopathology Laboratory, 2nd ED, 1991, Anatech
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:________________