Fixative, for fixing cytological or histological samples

**Intended Use:**
It is recommended to fix cytological and histological samples specially vaginal smear (for PAP staining). It preserve cellular morphology of specimen sample.

**Composition**

**Ingredients**
- Ethanol: 500 ml
- Diethyl ether: 500 ml

**Formula adjusted, standardized to suit performance parameters**

**Directions**
1) Prepare thin film of desired cytological or histological sample on clean dry slide.
2) For PAP Staining, fix the wet smear with fixative reagent for 20-30 minutes.
3) Rinse gently in distilled water, 10 dips (for 1sec. each)
4) Stain as per desired protocol.

**Principle And Interpretation**
The purpose of fixation is to preserve a sample of biological material (tissue or cells) as close to its natural state as possible in the process of preparing tissue for examination. First, a fixative usually acts to disable intrinsic biomolecules – particularly proteolytic enzymes – which would otherwise digest or damage the sample. Second, a fixative will typically protect a sample from extrinsic damage. Fixatives are toxic to most common microorganisms (bacteria in particular) which might exist in a tissue sample or which might otherwise colonise the fixed tissue. In addition, many fixatives will chemically alter the fixed material to make it less palatable (either indigestible or toxic) to opportunistic microorganisms. Finally, fixatives often alter the cells or tissues on a molecular level to increase their mechanical strength or stability. This increased strength and rigidity can help preserve the morphology(shape and structure) of the sample as it is processed for further analysis.

**Type of specimen**
- Cytological and Histological samples specially vaginal smear (for PAP staining)

**Specimen Collection and Handling**
For clinical samples follow appropriate techniques for handling specimens as per established guidelines (1, 2).
After use, contaminated materials must be sterilized by autoclaving before discarding.

**Warning and Precautions**
In Vitro diagnostic Use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets

**Limitations**
1) If fixative is used in excess quantity, it may cause shrinkage and hardning of tissue.
2) Some fixative may have potential biohazards.

**Performance and Evaluation**
Performance of the product is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.
**Quality Control**

**Appearance**
Colourless liquid.

**Clarity**
Clear without any particles

**Microscopic Examination**
Cell specimens are fixed using fixative and specific staining of fixed specimen is carried out. The stained slide is observed under microscope.

**Results**
Cell specimens are fixed and preserved.

**Storage and Shelf Life**
Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

**Disposal**
User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (1,2).

**Reference**