

## Decalcifier-Fixative Gooding Stewart

**IVD** In-vitro diagnostic medical device **CE**

**CND Code: W01030705**

Catalog number	Unit size
05-03003E	2.5 l

### Packaging

Primary container: white bottle in polyethylene terephthalate (PET). Useful capacity 2.5 liters. HDPE cap. Tamper evident cap.

The polyethyleneterephthalate is a thermoplastic polymer of the polyester family. PET is an optimal oxygen, carbon dioxide and other gasses barrier. This material has a high resistance to ultraviolet radiation and an inertia toward the mainly chemical agents (solvents: xylene, limonene, liquid paraffines, alcohols, acids, bases etc.). It is biologically inert. It constitutes a good water and humidity barrier. It shows a great hardness and mechanical resistance.

The bottle has an optimal grip. The absence of the handles reduces space for storage. The anti-dropping cap permits a precise and clean use.

Secondary container: carton box.

Wear, water, alcohol and solvents resistant PVC label. Scratchproof ink resistant to water and alcohol.

### Expected aim

Product for the preparation of cyto-histological samples for optical microscopy.

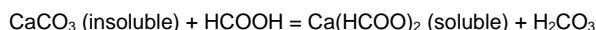
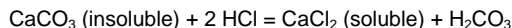
### Application

The mixture constituting the Decalcifier - fixative Gooding Stewart allows to fix and at the same time to decalcify the sample. It is advisable for breast biopsies with suspicious calcifications, calcified arteries, biopsies osteo-medullary.

### Principle

- Demineralization:

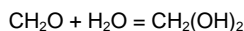
at the base of the demineralization process is the chemical reaction between the tissue calcium (mainly in the form of carbonate, phosphate, oxalate and urate) and hydrochloric acid and formic acid contained in the decalcifier solution



- Fixation:

The 10% formalin neutral buffered (equivalent to an aqueous solution of 4% formaldehyde) is the fixative most commonly used in routine histopathology. The interaction between formaldehyde and functional groups present in tissue macromolecules (proteins and nucleic acids) occurs according to the following scheme:

- formation of methylene glycol: the molecule of formaldehyde in water gives rise to the following equilibrium



- The methylene glycol is the chemical species that interacts primarily with the functional groups present in the side chains of the proteins and with acids stabilizing the nuclear structure.

- secondarily formaldehyde form crosslinks between the free amino groups present in the side chains of amino acids.

### Fixation technique

- 1) Volume ratio specimen/decalcifier 1 : 50
- 2) Procedure time: 4 – 12 hours < 3 mm thick specimens.
- 3) Post decalcifying procedure: reconditioning of the sample. Rinse with slowly running water for 1 hour or apply 3 changes of PBS pH 7.4, 20 minutes each.

### Components

Components	CAS	CE	Index
Formic Acid	64-18-6	2005791	607-001-00-0
Formaldehyde	50-00-0	200-001-8	605-001-00-5
Deionized water			

**Warning and precaution**

The product must be used exclusively by specialized technical operators.  
Carefully read the information on the classification of dangerous substances on the label. Always refer to the safety data sheet where are available the information on the risks presented by the mixture, the precautionary measures during use, the measures first aid and the intervention in the event of accidental release.

Do not use if the primary container is damaged.

**Storage**

Store the preparation at 15-25°C. Keep the containers tightly closed.

**Stability**

After the first opening, the product is usable until the expiry date, if correctly stored. Validity: 2 years.

**Disposal**

Hazardous preparation: observe all state and local environmental regulations regarding waste disposal.

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