

10% neutral buffered Formalin (ready to use)

Contains formaldehyde 4%

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

CND Code: W01030705

Catalog number	Unit size
05-K01004	20 l
05-K01004R (+ tap)	20 l
05-01004F	5 l
05-K01009	10 l
05-K01009R (+ tap)	10 l
05-01005Q	2.5 l x 4

Packaging

- 05-K01004

Primary container: PE tank in neutral colour, capacity 20 liters, UN approved. Blue screwcap in PE with a seal. Watertight.

Secondary container: EUR pallet wood 80 x 120 cm. Protective coating: lateral film LLDPE, HDPE top.

- 05-K01004R

Primary container: PE tank in neutral colour, capacity 20 liters, UN approved. Blue screwcap in PE with a seal. Watertight. Tap in PE for an accurate dispensing dripless.

-05-01004F

Primary container: PE tank in neutral colour, capacity 5 liters, UN approved. Blue screwcap in PE with a seal. Watertight.

- 05-K01009

Primary container: PE tank in neutral colour, capacity 10 liters, UN approved. Blue screwcap in PE with a seal. Watertight.

Secondary container: EUR pallet wood 80 x 120 cm. Protective coating: lateral film LLDPE, HDPE top.

- 05-K01009R

Primary container: PE tank in neutral colour, capacity 10 liters, UN approved. Blue screwcap in PE with a seal. Watertight. Tap in PE for an accurate dispensing dripless.

- 05-01005Q

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.

Specifications

pH	7.0-7.2
density	1.003
buffer molarity	0.05 M

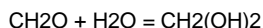
Application

Universal fixative for histological specimens.

Principle

The 10% formalin neutral buffered (equivalent to an aqueous solution of 4% formaldehyde) is the fixative most commonly used in the histopathological routine. 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/ fixative 1 : 50
- 2) Specimen thickness 1 cm max
- 3) Fixation time at room temperature: for specimens up to 5 mm 5 hours, for greater thickness 1-2 days

Components

Components	CAS	CE	Index
Sodium phosphate dibasic dihydrate 0,7-0,8% p/v	10028-24-7	231-448-7	-
Sodium phosphate monobasic monohydrate 0,15-0,2% p/v	7558-80-7	231-449-2	-
Formaldehyde 4% p/v	50-00-0	200-001-8	605-001-00-5
Methanol 0.1% v/v	67-56-1	200-659-6	603-001-00-X
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 room temperature 15-25°C. Keep the containers tightly closed.

Stability

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

Disposal

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

References

- American Forces Institute of Pathology: Laboratory Methods in Histotechnology, Washington D.C., A.F.I.P. 1994.
- Fox CH, Johnson FB, Whiting J. and Roller PP: Formaldehyde fixation. The Journal of Histochemistry and Cytochemistry vol. 33, N. 8, pp. 845-853, 1985.
- Le botlan DJ, Mechin BG, and Martin GJ: Proton and carbon-13 nuclear magnetic resonance spectrometry of formaldehyde in water. Anal. Chem. 1983, 55, 587-591.
- Bancroft JD, Gamble M. Theory and Practice of Histological Technique. Churchill Livingstone Elsevier, 2008.

Date of issue: December 2018