E060   HPMA KIT   GCC Diagnostics

General & Useage information

HPMA is a water-miscible resin . Sections from HPMA blocks may be stained with aqueous stain reagents for assessment by light microscopy. It is beneficial to dehydrate tissue before infiltrating with the resin, although transferring tissue direct from aqueous fixatives has been successful.

Polymerization is achieved by the use of a catalyst, benzoyl peroxide and an activator, Dimethylaniline. By varying the concentration of these components the speed of polymerisation can be controlled.
To improve the cutting characteristics of the block, two plasticisers, 2-Butoxyethanol and polyethylene glycol are incorporated into the mixture. Increasing the 2-Butoxyethanol content will decrease the hardness of the block.

Contents : Hydroxypropyl methacrylate 250ml   2-Butoxyethanol   50ml
            Benzoyl peroxide 5gm   Polyethylene glycol   25ml
            Dimethylaniline 5ml

No additional reagents required .

Methods & results

(Soln A) Preparation of Monomer solution (Infiltration media)

Hydroxypropyl methacrylate   80ml
2-Butoxyethanol   8 ml
Benzoyl peroxide   1.25 gm

(Soln B) Preparation of Activator solution

Polyethylene glycol   2gm
Dimethylaniline   0.16gm

Procedure for Formalin fixed tissue.

Fix tissue in 10% neutral Formal –Saline .

70% Ethanol for 1 hour
90% Ethanol for 1 hour.
100% Ethanol (3 changes) for 30 minutes each.
Soln A (Monomer) for 2 hours
Change to fresh Soln A, keep tissue immersed overnight.

Embed in the following mixture

Soln A   42 gm
Soln B   1 gm
Mix well

Complete polymerisation only occurs under anaerobic conditions. Ensure air bubbles are avoided and air is kept out (seal the mould) during polymerisation. Polymerization should complete within a few hours at room temperature. The reaction is exothermic and it may be advisable to apply ice to the lower portion of the block where polymerisation begins.

No quality control is required

Material safety data Section

Hydroxypropyl methacrylate is an Irritant. It will irritate eyes, skin and internal organs, by contact and inhalation.
Butoxyethanol is Harmfull by skin contact, ingestion and inhalation.
Benzoyl peroxide is an inrritant by contact and inhalation and can be explosive when dry.
Dimethylaniline is Toxic by contact, ingestion and inhalation.

In all cases – Do not consume these reagents. Do not breathe vapour. Observe usual safety procedures for the handling and use of laboratory chemicals. Wear suitable eye & body protection when using. Use in an efficient ventilated cupboard. If in contact with eyes rinse in eye bath for a least 5 minutes. If soreness persists consult a doctor.
If in contact with skin wash with soap and water.
If inhaled and you feel unwell move to a clean air zone and seek immediate medical advice on what treatment to administer.

R: 1-2-20-21-22-36-37-38 S: 2-7-15-36-51

Waster disposal & Spillage

Clean spillage area with cloth , rinse cloth in sink and wash are down with soap & water runnin g the waste to Public Sewer.
In the quantities used in the kit dilute waste residues to Public Sewer diluting greatly with water or consult local regulation about the disposal of such products. Recycle clean packaging as glass, polyethylene and cardboard.

Unsatisfactory performance

As part of our duty to monitor product performance and our policy of continual improvement. Please report to us any unsatisfactory performance you may experience with this product. If any reagent degrades before expiry date of shelf life we will replace that reagent free of charge.

GCC Diagnostics guarantees that the highest quality reagents are supplied with this product and that the product conforms to the information contained in this leaflet.
The user should however, determine the suitability of this product for their particular use.
If you wish to report any findings to us or if you require help or further information on the use of this product please contact us.

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