Highly biocompatible root canal cement without eugenol.

1. **Composition:**

2. **Packaging:**
   The package:
   - 5 monodose vials containing 400 mg of powder each
   - 5 monodose capsulas, containing 0.6 ml of liquid each
   - 1 mixing block

3. **Properties:**
   AUREOSEAL M.T.A. is an innovative root canal cement without eugenol. It can be used with a large spectrum of indications including hard clinic cases because of its unique characteristics. The material is made of hydrophilic microparticles that contain modified mineral oxides. Their hydrophilic properties allows an effective setting in a wet environment, including blood and other organic liquids. Its highly alkaline pH, which comes out during the setting, limits the bacterial growth and its biocompability increases the healing process.

   AUREOSEAL M.T.A. has unique sealing properties, it is ideal for filling the root perforations. In case of using for the direct pulp capping the material stimulates the formation of the dentinal bridge. It stimulates the formation of the apical barrier of hard tissues in the permanent teeth with undeveloped apices.

   The powder should be mixed only with water. The material does not have such side-effects as irritative effects on the periodont and low adhesion in the wet environment specific for cements based on zinc oxide and eugenol.

4. **Indications:**
   AUREOSEAL M.T.A. can be used in the following applications: sealing the perforation in the root and in the bifurcation zone, sealing the perforation of the root canal in consequence of its internal resorption, direct pulp capping, sealing of the apical third in the teeth with an open apex and undeveloped roots, retrograde sealing of the apex, surgical method of the sealing of the root perforation.
5. Instructions for preparing the material:
Mix the powder of one vial with 3-4 drops of water, using the mixing block. The material must be carefully mixed till it gets an homogeneous dense consistence. The working time is 3-5 min with the temperature 20°С, however it can be prolonged if adding more liquid or remixing the material.

6. Instructions on applications:
Sealing the perforation in the root, in the bifurcation zone and sealing the perforation of the root in consequence of its internal resorption
• Isolate the working zone using the Rubber Dum
• Wash and prepare the root canal
• Stop the bleeding and dry the root canal
• In case of inflammation of the tissues of periodont it is necessary to treat the canal with a material based on calcium hydroxide (CALIFORM)
• After 1-2 weeks take the calcium hydroxide material off and prepare the root canal for the endodontic treatment
• Seal the canal with a gutta-percha point and a sealer below the perforation level
• prepare AUREOSEAL M.T.A. and place to the perforation zone using the sealing instrument
• place on AUREOSEAL M.T.A. a wet cotton pellet and close the working zone with a temporary sealer minimum for 24 hours
• during the next visit it is necessary to check the hardness of the material
• seal the other part of the canal with gutta-percha and sealer and realize the final restoration works
• check the results of the work doing the X-ray after 3-6 and 12 months

Direct pulp capping
• Isolate the working zone using the Rubber Dum
• Remove the carious tissues with a bur or other instruments
• Wash the working zone using a disinfectant solution
• Check the bleeding
• Prepare AUREOSEAL M.T.A. and place it on the open zone of the pulp
• Place a lining material on AUREOSEAL M.T.A. and realize the final restoration works
• check the results of the work doing the X-ray after 3-6 and 12 months

Sealing of the apical third in the teeth with an open apex and undeveloped roots
• Isolate the working zone using the Rubber Dum
• Wash and prepare the root canal
• treat the canal with a material based on calcium hydroxide (CALIFORM)
• After 1-2 weeks take the calcium hydroxide material off and prepare the root canal for the endodontic treatment
• Prepare AUREOSEAL M.T.A. and generate in the form of a cylinder (3-4 mm). Place the material in the root canal using a wet instrument and press in order to seal the apical third of the canal.
• Check the correct position of the material using the X-ray. If it is necessary you can add more material, however it is recommended to place it only once
• place on AUREOSEAL M.T.A. a wet cotton pellet and close the working zone with a temporary sealer minimum for 24 hours
• during the next visit it is necessary to check the hardness of the material
• seal the other part of the canal with gutta-percha and sealer and realize the final restoration works
• check the results of the work doing the X-ray after 3-6 and 12 months

Retrograde dealing of the apex
• prepare the surgical zone
• peel out a rag for an exposure of the top of the root
• do a resection of the apex with the minimum angle of slope 3 mm
• pay attention: to get the best result it is necessary to prepare the pass for sealing minimum 3 mm length
• check one more time the surgical zone and remove all the granuloma rests
• stop the bleeding
• prepare AUREOSEAL M.T.A. and place it in the retrograde zone using a wet instrument
• press the material in the root canal
• remove the rests of the material, clean the surgical zone with a wet cotton pellet and put a stitch (after placing AUREOSEAL M.T.A. in the retrograde zone it is possible to fill the bone defect with a bone tissue regeneration material)
• check the results of the work doing the X-ray after 3-6 and 12

Surgical method of the sealing of the root perforation
• prepare the surgical zone
• peel out a rag for the localization of the perforation
• dissect the perforation zone in order to get the optimal form to introduce AUREOSEAL M.T.A.
• stop the bleeding
• prepare AUREOSEAL M.T.A. and place it in the perforation zone using a wet instrument
• remove the rests of the material, clean the surgical zone with a wet cotton pellet and put a stitch (after placing AUREOSEAL M.T.A. in the retrograde zone it is possible to fill the bone defect with a bone tissue regeneration material)
• check the results of the work doing the X-ray after 3-6 and 12

7. Safety measures:
To get the optimal characteristics of hardening and sealing it is recommended to follow the instructions regarding the proportions water/powder.
The sealing of the root canal must be realized without any clinical symptoms.

To store in a place inaccessible for children.
Apply the material in accordance with the instructions.

8. Contraindications:
Hypersensitivity to material components.
There were not registered any adverse reactions to the material.

9. Storage conditions:
To store at a room temperature in a place protected from moisture and heat.

10. Application:
Only for professional application in dental practice.

OGNA Laboratori Farmaceutici