CLUNIA® Clinical Zn-A gel
CLUNIA® Maintenance Zn gel

Easy Application Oral Mucoadhesive Gel for a Highly Effective and Safe Oral Hygiene, in Dogs, Cats, Exotic Animals and Horses

Data Sheet

Periodontal disease is possibly the most common pathology in dogs and cats (Lund E My col, 1999; Maretta SM, 1994). A 60% incidence rate has been reported in domestic cats older than 3 years and up to 85% in cats older than 6 years (Maretta SM, 1994; Tholen Mand Hoyt RF, 1990); similar figures have been reported in dogs.

Periodontal disease is a chronic and irreversible disease that affects the supporting tissue of the teeth (gums, alveolar bone, cementum and periodontal ligament). The disease is often divided into two conditions: gingivitis and periodontitis. Gingivitis is inflammation of the gingiva, while periodontitis is inflammation of non-gingival tissue: periodontal ligament and alveolar bone (Harvey CE, 2005).

Composition:

	Clinical Zn-A gel	Maintenance Zn gel
Zinc Gluconate	2%	1.5%
Ascorbic Acid	1.6%	-
Taurine	1%	0.5%
Excipients	csp	csp

Mechanism of Action:

- CLUNIA® restores the microenvironment of the mouth and gums, creating an environment that promotes natural healing. It contains a complex made of Zinc Gluconate, Vitamin C and Taurine, which provides highly bioavailable Zinc to the deepest layers of the oral mucosa.
- **Zinc** is an essential factor in more than 300 enzymatic reactions, many of which are involved in the regeneration of the extracellular matrix, healing processes, repair of connective tissue, inflammation and cellular growth. In the oral cavity, Zinc, due to its role in collagen production, allows gingival tissue to recover effectively reducing inflammation.
- **Taurine** has a chelating action on sulphur compounds that produce bad breath and oxidises volatile fatty acids in the mouth, quickly (after 30 seconds) reducing halitosis.
- **Vitamin C** (Ascorbic Acid) is important to the production of collagen, which is the main structural protein in the gum. It stimulates and accelerates repair of the gingival tissue. In addition, Zinc Ascorbate stimulates the salivary glands, providing a flushing action throughout the oral cavity, which facilitates the diffusion of the gel to all corners of the mouth.
- **Carboxymethyl Cellulose** is mucoadhesive and provides the product with a longer contact time with the surfaces of the oral cavity (Gurny R, Meyer JM, Peppas NA, 2015).

Indications:

- Dogs and cats:
  - CLUNIA® Clinical Zn-A gel –Therapeutic use.
    - ✓ Before and after bucco-dental revision and/or hygiene.
      - Applied daily for 7-10 days prior to dental cleaning, particularly in animals with gingivitis, CLUNIA® Clinical Zn-A gel significantly reduces haemorrhaging by improving the health of the gums and shortens intervention time.
      - Like post-surgery prophylactic antibiotics, the antiseptic action of CLUNIA® Clinical Zn-A gel helps to prevent infections after dental cleaning.
    - ✓ Advanced periodontal problems.
    - ✓ Oral and maxillofacial post- surgery.
    - ✓ Buccal wounds and lacerations.
    - ✓ Mouth ulcers.
    - ✓ Abscesses.

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Features

Complete protection: plaque, tartar, gingivitis, stomatitis and halitosis.

Reduces plaque formation.

Antiseptic action against periodontal pathogens.

Promotes the resolution of gingivitis.

Stimulates the healing of injured or ulcerated gums and mucosa.

Quickly (30 seconds) neutralises bad breath.

Natural (Zinc, Vitamin C and Taurine) and very safe - Ideal for prolonged treatments in which the animal ingests the product.

Flavourless – High acceptance.

Easy application, no need to brush.

Advanced formula for therapeutic use (CLUNIA® Clinical Zn-A gel) and another for maximum acceptance by the pet for prophylactic use (CLUNIA® Maintenance Zn gel).

Does not stain the dental enamel.

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Data Sheet

✓ Keeps the oral cavity in optimal conditions (by stimulating salivation) in intubated, sedated and post-surgical patients.

- CLUNIA® Maintenance Zn gel – Prophylactic and/or Maintenance Use:
  - ✓ Applied daily, helps to maintain optimal oral health; ensuring the pet's ability to follow a proper diet throughout its life, preventing more serious problems such as bacterial endocarditis and helping to improve the animal's well-being.
  - ✓ To clean and freshen the oral cavity and teeth with or without brushing.
  - ✓ Halitosis control.

- Exotic animals:
  - Rabbits: Dental problems associated with dental overgrowth and malocclusion (ulcers, abscesses…).
  - Ferrets: Periodontal disease.
  - Reptiles: Stomatitis.
  - Birds: Sinusitis (mild or intermediate).
- Horses:
  - Wounds produced by the bit.
  - Dental post-extraction wounds/scars.
  - Oral lesions.
  - Abscesses.
  - Dental post-float irritation.
  - Periodontitis.
  - Stomatitis.

Directions of Use:

- CLUNIA® Clinical Zn-A gel:
  1. Remove the applicator cap, pour the contents of the enclosed vial (Vitamin C) into the bottle and let the Vitamin C settle on the bottom. Replace the cap and shake until dissolved.
  2. Apply 1 drop of gel (the size of a pea – approximately 0.5 ml for pets up to 10 kg, increasing the dose for medium and large dogs and horses) to each side of the mouth, on the upper gums; the natural cleaning action of the mouth will distribute the gel to the most remote areas.
  3. Repeat the application every day for maximum efficacy.
  4. Most medium and large-breed dogs will accept direct application with the tip of the applicator; to maximize acceptance in cats and small-breed dogs, place one drop on the index finger, swab or toothbrush and apply to the gums.
- CLUNIA® Maintenance Zn gel: follow steps 2 to 4 described above.

Safety:

Many domestic-use dental products contain chlorhexidine. Published research has shown that the regular use of chlorhexidine in veterinary dentistry may increase the rate of plaque mineralisation, (calculus formation), stain dental enamel (brown) and decrease the sense of taste in the patient (HaleFA,2002). Furthermore, when ingested, its antimicrobial action partially destroys the digestive flora. CLUNIA® Clinical Zn-A gel and CLUNIA® Maintenance Zn gel are natural products (Zinc, Vitamin C and Taurine) and generally recognised as the safest approach to oral care, especially in animals, which unlike people, ingest the entire product. They have no contraindications and can therefore be administered long term or for life.

Vitamin C stimulates salivation so some cats may present sialorrhea following administration of CLUNIA® Clinical Zn-A gel. CLUNIA® Maintenance Zn gel, which lacks Vitamin C, may be a better option for those cats.

Warnings: Keep container tightly closed, in a cool, dry place, protected from direct sunlight and out of the reach of children and animals.

After mixing the Vitamin C, CLUNIA® Clinical Zn-A gel has a useful life of approximately 6 months in a cool, dark cupboard, or 1 year in the refrigerator. The colour of the solution indicates the degree of

Does not stain surfaces and fabrics in the home.

Low daily cost.

Available exclusively through veterinarians.

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Data Sheet

freshness and efficacy of the product: use while it is still blue or green; brown or yellow colour denotes that the product, although still safe, is no longer fresh and effective.

- What causes the colour change? Vitamin C is unstable in aqueous solutions such as the MethylCellulose gel in the CLUNIA® formula. Once mixed, the Vitamin C (Ascorbic Acid) very slowly changes to Dehydro-Ascorbic Acid, which is yellow; when the yellow mixes with the blue CLUNIA® gel, it projects a green colour; when the concentration of Dehydro-Ascorbic Acid is very high, the colour will change again from green to yellow-brown.

Presentation:

- CLUNIA® Clinical Zn-A gel: 118 ml.
- CLUNIA® Maintenance Zn gel: 59 ml.

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CLUNIA® Maintenance Zn gel

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CLUNIA® Maintenance Zn gel

Easy Application Oral Mucoadhesive Gel for a Highly Effective and Safe Oral Hygiene, in Dogs, Cats, Exotic Animals and Horses

Data Sheet

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CLUNIA® Clinical Zn-A gel
CLUNIA® Maintenance Zn gel

Easy Application Oral Mucoadhesive Gel for a Highly Effective and Safe Oral Hygiene, in Dogs, Cats, Exotic Animals and Horses

Data Sheet

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CLUNIA® Clinical Zn-A gel
CLUNIA® Maintenance Zn gel

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Data Sheet

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