

CHLORHEXIDINE DIGLUCONATE

INCI Chlorhexidine Digluconate
CAS 18472-51-0

SPECIFICATIONS

Appearance Almost colorless or pale yellowish liquid
Assay (%) 19 – 21
pH 5.5 – 7.0

GENERAL INFORMATION

Chlorhexidine is a chemically synthesized disinfectant with an anti-septic action with a broad spectrum of action, active against Gram-positive and Gram-negative bacteria, and also against fungi. It possesses a bactericidal action; it acts, in fact, by drastically increasing the permeability of the bacterial cell membrane by altering its protein structure. This causes the precipitation of various cytoplasmic macromolecules and the subsequent cell death by lysis of the bacterial cell or of the fungus.

Chlorhexidine Digluconate is a topical anti-microbial agent and disinfectant used to treat fungus, bacteria and other skin infections. In cosmetics it mainly functions as a biocide, oral care agent and preservative. As a biocidal agent it helps cleanse the skin and eliminates odor by destroying the growth of microorganisms. In addition to preventing bacterial growth on contact it also has residual

effects that inhibit microbial regrowth after application. Chlorhexidine Digluconate is widely used in oral care because of its ability to eliminate plaque formation. Its anti-bacterial properties also make it an effective preservative that protects a cosmetic formulation from contamination and spoilage. It can be found in various personal care products such as mouthwash, hair dye, foundation, anti-aging treatment, facial moisturizer, sunscreen, eye makeup, acne treatment, exfoliant/scrub, cleanser and after shave.

Chlorhexidine, being poorly soluble in water, is often used in its saline form (here digluconate) in drugs or cosmetics. Chlorhexidine digluconate is a skin antiseptic used in bisectin. In cosmetics it is on the list of authorized curators. In deodorants it can play an active role in limiting the proliferation of bacteria responsible for body odor. In toothpastes, likewise, it can help limit plaque build-up.

FORMULATION & RECOMMENDATIONS

Chlorhexidine Digluconate can cause type I and type IV allergies. Some allergic individuals have been exposed to this substance in the healthcare setting (such as patients or healthcare professionals) but for others the source of sensitization is unknown. Chlorhexidine Digluconate can be used as a preservative or antimicrobial agent in cosmetic products at concentrations up to 0.3% as established by the European Cosmetics Directive.

Dosage level

Recommended concentration 0.3 % max (as chlorhexidine)
Restriction in Europe The maximum permissible concentration in ready-to-use cosmetic preparations is 0.3% (as chlorhexidine)

APPLICATIONS

Cosmetics

- Skin Care
- Sun Care
- Toiletries
- Oral Care
- Hair Care
- Baby Care
- Makeup

Fragrances

Pharmaceuticals

Natural extracts

BENEFITS

- Polyvalent preservative
- Easy to use
- High efficacy
- Can be used on mucous membranes

PACKAGING & SHELF LIFE

Available packaging

25 kg net drums / 200 kg net drums

Shelf life

48 months under proper storage conditions.

