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(72) Inventeurs/Inventors:
HU, ZHENZE, US;
SALAMONE, JOSEPH C., US
(73) Propriétaire/Owner:
BAUSCH & LOMB INCORPORATED, US
(74) Agent: OSLER, HOSKIN & HARCOURT LLP

(54) Titre : COMPOSITIONS ANTIMICROBIENNES CONTENANT UN TAMPON A BASE D'ETHANOLAMINE ET UN
DESINFECTANT A BASE DE BIGUANIDE
(54) Title: ANTIMICROBIAL COMPOSITIONS CONTAINING ETHANOLAMINE BUFFER AND BIGUANIDE
DISINFECTANT

(57) **Abrégé/Abstract:**

The use of a composition of one or more aminoalcohol buffers in combination with one or more antimicrobial agents to disinfect contact lenses and preserve ophthalmic lens compositions is described. Ophthalmic lens solutions containing compositions of one or more aminoalcohol buffers in combination with one or more antimicrobial agents and methods of making and using the same are also described.



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(71) Applicant (for all designated States except US): **BAUSCH & LOMB INCORPORATED** [US/US]; One Bausch & Lomb Place, Rochester, NY 14604-2701 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HU, Zhenze** [US/US]; 28 Wenham Lane, Pittsford, NY 14534 (US). **SALAMONE, Joseph, C.** [US/US]; 8 Woodcliff Terrace, Fairport, NY 14450 (US).

(74) Agents: **VACCA, Rita, D.** et al.; BAUSCH & LOMB INCORPORATED, One Bausch & Lomb Place, Rochester, NY 14604-2701 (US).

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ANTIMICROBIAL COMPOSITIONS CONTAINING ETHANOLAMINE BUFFER AND BIGUANIDE DISINFECTANT

Field of the Invention:

The present invention is directed toward the use of a combination of one or more aminoalcohol buffers and one or more antimicrobial agents for disinfection and preservation. More particularly, the present invention is directed toward the use of one or more ethanolamine buffers in combination with one or more biguanides to enhance disinfection and preservation of ophthalmic solutions and devices.

Background of the Invention:

Contact lenses in wide use today fall into two general categories, hard and soft. The hard or rigid corneal type lenses are formed from materials prepared by the polymerization of acrylic esters, such as poly(methyl methacrylate) (PMMA). The gel, hydrogel or soft type lenses are made by polymerizing such monomers as 2-hydroxyethyl methacrylate (HEMA) or, in the case of extended wear lenses, by polymerizing silicon-containing monomers or macromonomers. Both the hard and soft types of contact lenses are exposed to a broad spectrum of microbes during normal wear and become soiled relatively quickly. Contact lenses whether hard or soft therefore require routine cleaning and disinfecting. Failure to routinely clean and disinfect contact lenses properly

systems. Such improved disinfecting systems include systems that are simple to use, are effective against a broad spectrum of microbes, are non-toxic and do not cause ocular irritation as the result of binding to the contact lens material. There is a particular need in the field of contact lens disinfection and ophthalmic composition preservation for safe and effective chemical agents with antimicrobial activity.

Summary of the Invention:

The present invention relates to improved antimicrobial compositions for disinfecting medical devices, such as, for example, but not limited to contact lenses. More particularly, the present invention relates to the use of an aminoalcohol buffer such as ethanolamine in ophthalmic solutions. It has been found that compositions including an ethanolamine buffer exhibit excellent disinfecting and/or preservative effect, surprisingly without the aid of a borate buffer. The antimicrobial compositions of the present invention likewise stabilize proteins already deposited on worn contact lenses to improve the wearing comfort for contact lens wearers. The antimicrobial compositions of the present invention are also useful for preservation of ophthalmic compositions such as pharmaceuticals, artificial tears and comfort drops against microbial contamination.

