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## Patent Search

Invention Title	ANTIMICROBIAL COMPOSITION COMPRISING NI-COMPLEX OF TRIETHOXYBENZALDIMINE DERIVATIVE OF O-CARBOXYMETHYL CHITOSAN
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#### Abstract:

The present invention relates to a novel antimicrobial composition comprising a nickel (Ni) complex of a triethoxybenzaldimine derivative of O-carboxymethyl chitosan as an active compound and a pharmaceutical composition thereof, and a method of preparation thereof, and wherein the triethoxybenzaldimine derivative of O-carboxymethyl chitosan has the following structural Formula-1, and the nickel (Ni) complex of a triethoxybenzaldimine derivative of O-carboxymethyl chitosan has the following structural Formula-2: Formula-1 Ni-complex of the triethoxybenzaldimine derivative of O-CMC

### **Complete Specification**

#### TECHNICAL FIELD OF THE INVENTION:

The present invention primarily relates to antimicrobial composition comprising a triethoxybenzaldimine derivative of O-carboxymethyl chitosan or a Ni-complex of triethoxybenzaldimine derivative of O-carboxymethyl chitosan as an active compound, and a pharmaceutical composition thereof.

Particularly, the present invention relates to antimicrobial composition comprising a triethoxybenzaldimine derivative of O-carboxymethyl chitosan as an active compound, wherein the active compound of the composition comprises a product obtained by reacting: (a) O-carboxymethyl chitosan moiety (O-CMC) and (b) triethoxybenzaldehyde moiety which results in formation of the triethoxybenzaldimine derivative of O-carboxymethyl chitosan; and a pharmaceutical composition thereof.

More particularly, the present invention relates to antimicrobial composition comprising Ni-complex of triethoxybenzaldimine derivative of O-carboxymethyl chitosan as an active compound, wherein the active compound of the composition comprises a product obtained by reacting: (a) O-carboxymethyl chitosan moiety and (b) triethoxybenzaldehyde moiety in first step resulting in formation of a triethoxybenzaldimine derivative of O-carboxymethyl chitosan followed by reacting with (c) a metal salt moiety in second step resulting in formation of the Ni-complex of triethoxybenzaldimine derivative of O-carboxymethyl chitosan; and a pharmaceutical composition

thereof.

In one embodiment, the present invention relates to method of preparation of the active compounds of the antimicrobial compositions of the present invention.

In another embodiment, the present invention relates to method of using the antimicrobial compositions of the present invention as antimicrobial drug formulation, or as

BIOLOGICAL MATERIAL:

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antibacterial drug formulation and/or as antifungal drug formulation.