
Product Data Sheet

Product Name: Decamethoxine

Cat. No.: GC68953

Chemical Properties

Cas. No. 38146-42-8

Formula $C_{38}H_{74}Cl_2N_2O_4$

M.Wt 693.91

Solubility DMSO : 25 mg/mL (36.03 mM; Need ultrasonic)

Storage 4°C, away from moisture

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

Decamethoxine (Septefril) is a cationic gemini surfactant. Decamethoxine exhibits strong bactericidal and fungicidal effects. Decamethoxine modifies the permeability of the microbial cell membrane, resulting in the destruction and death of diverse microorganisms^{[1][2]}.

Decamethoxine (Septefril) has a wide spectrum of antimicrobial action on Gram-positive bacteria (*Staphylococcus*, *Streptococcus*, *Pneumococcus*), Gram-negative bacteria (*Pseudomonas*, *Neisseria gonorrhoeae*, *Chlamydia trachomatis*), protozoa, dermatophyte, yeast-like fungi of *Candida* genus, and viruses^[1].

Decamethoxine at a concentration of 10 µg/ml drastically reduces the adhesion of coryneform bacteria, *Salmonella*, *Staphylococcus*, and *Escherichia* ^[2].

[1]. Kovalchuk V, et al. Naturally Drug-Loaded Chitin: Isolation and Applications. *Mar Drugs*. 2019;17(10):574. Published 2019 Oct 10.

[2]. Nazarchuk OA, et al. The research of antimicrobial efficacy of antiseptics decamethoxin, miramistin and their effect on nuclear DNA fragmentation and epithelial cell cycle. *Wiad Lek*. 2019;72(3):374-380.

Caution: Product has not been fully validated for medical applications. For research use only.

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