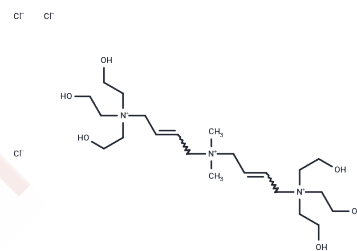


## Polyquaternium-1

### Chemical Properties

CAS No. :	75345-27-6
Formula:	(C <sub>6</sub> H <sub>12</sub> N) <sub>n</sub> C <sub>16</sub> H <sub>36</sub> N <sub>2</sub> O <sub>6</sub> Cl <sub>3</sub>
Molecular Weight:	556.99
Storage:	Keep away from moisture Powder: -20°C for 3 years   In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



### Biological Description

Description	Polyquaternium-1 (PQ-1) exerts strong bacteriostasis and little eye irritation and can be used as a polycationic ophthalmic preservative. Polyquaternium-1 inhibits the growth of microbial contaminants in multi-dose bottles of topical medications.
Targets(IC50)	Antibacterial

### Solubility Information

Solubility	H <sub>2</sub> O: 105.00 mg/mL (188.51 mM), Sonication is recommended. DMSO: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7954 mL	8.9768 mL	17.9536 mL
5 mM	0.3591 mL	1.7954 mL	3.5907 mL
10 mM	0.1795 mL	0.8977 mL	1.7954 mL
50 mM	0.0359 mL	0.1795 mL	0.3591 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Kinnunen K, et al. Cationorm shows good tolerability on human HCE-2 corneal epithelial cell cultures. *Exp Eye Res.* 2014 Mar;120:82-9.
- Rolando M, et, al. Ophthalmic preservatives: focus on polyquaternium-1. *Expert Opin Drug Deliv.* 2011 Nov;8(11): 1425-38.

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