

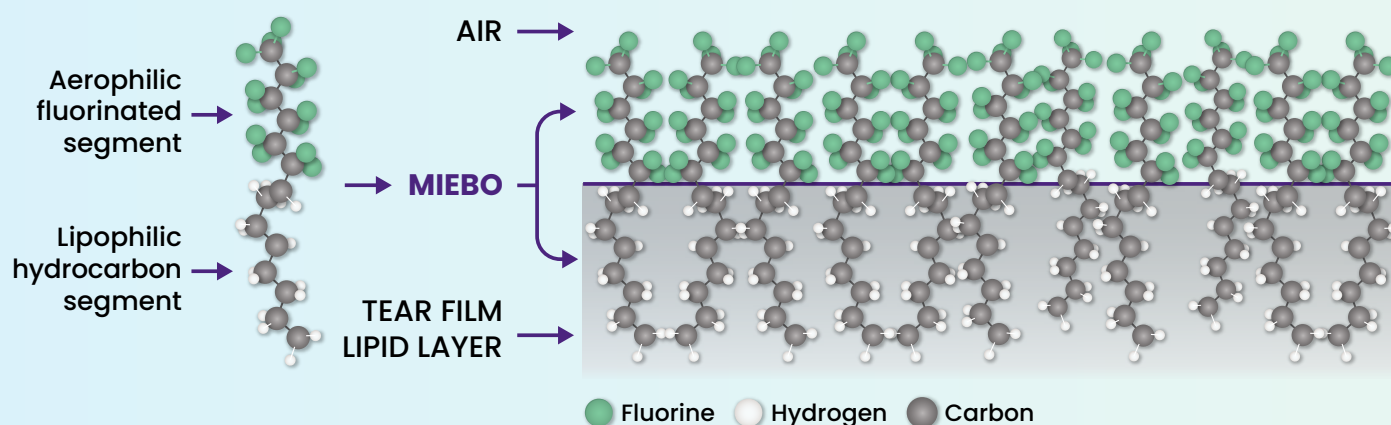


The science of MIEBO— 100% perfluorohexyloctane¹

Vehicle free | Water free | Preservative free | Steroid free

MIEBO forms a monolayer at the air-liquid interface of the tear film¹

Due to its unique structure, perfluorohexyloctane
(F6H8) has dual affinity for air and lipids¹⁻⁴



MIEBO is the first and only Rx eye drop for DED that directly targets evaporation¹

Remains in tears
for up to 6 hours
(PK rabbit study)^{5,6*}

Low surface tension
allows for quick and
even spreading^{3,7}

Low refractive
index—minimal
vision blurring^{4†}



The exact mechanism of action for MIEBO in DED is not known.¹

DED, dry eye disease; PK, pharmacokinetic.

Aerophilic, high affinity for air; lipophilic, high affinity for lipids (fats/oils).

*The ocular distribution of perfluorohexyloctane (PFHO) was assessed following ocular topical dosing of radiolabeled ¹⁴C-PFHO in 2 studies of 14 Dutch-Belted rabbits. Rabbits received either a single instillation or repeated topical ocular doses. After the last instillation, ocular tissues were collected at multiple time points through 24 hours and radioactivity in the individual collected tissues was measured by liquid scintillation counting. Levels of ¹⁴C-PFHO were observed in the tears through at least 6 hours in both studies. PFHO was detectable in the meibomian glands through 24 hours. **The clinical significance of this data has not been established.**⁶

[†]Blurred vision rates in pivotal trials: GOBI, 3.0%; MOJAVE, 1.3%.^{8,9}

INDICATION

MIEBO® (perfluorohexyloctane ophthalmic solution) is indicated for the treatment of the signs and symptoms of dry eye disease.

IMPORTANT SAFETY INFORMATION

- MIEBO should not be administered while wearing contact lenses. Contact lenses should be removed before use and for at least 30 minutes after administration of MIEBO
- Instruct patients to instill one drop of MIEBO into each eye four times daily
- The safety and efficacy in pediatric patients below the age of 18 have not been established

Please see additional Important Safety Information on next page.

Click [here](#) for full Prescribing Information for MIEBO.

MIEBO is a unique semifluorinated alkane, not found in any other Rx products for DED²

Different structures, different uses—understanding semifluorinated alkanes (SFAs)

Each has its own distinct chemical properties^{10,11}

Chain length influences the volatility of the compounds¹⁰

They are used in different ways therapeutically¹⁰

What makes perfluorohexyloctane (PFHO) different?

MOA/function



ANTI-EVAPORATIVE²

- Mimics key functions of natural meibum^{2,5}
- Promotes healing on the ocular surface¹²
- May reduce friction^{4,8,9}

Vapor pressure (volatility)



LOW, meaning it is **slow to evaporate**^{10,11}

Evaporation rate (in vitro gravimetric assay)*



SLOW; <1.5% evaporated in 1 hour vs 93% with an SFA with a shorter chain length¹⁰

Corneal residence after 60 minutes (ex vivo model; % remaining)[†]



54.5% remained on the ocular surface, which was **3x GREATER** than an SFA with a shorter chain length (18.6%)¹⁰

*The evaporation rate of perfluorohexyloctane and perfluorobutylpentane was assessed gravimetrically by placing 500 µl in a preweighed tissue culture dish, which was then incubated at 35 ± 3 °C to mimic body temperature. The percentage of perfluorohexyloctane or perfluorobutylpentane that evaporated per unit time was obtained by weighing the sample immediately after each addition and 0.5, 1, 2, 4, and 24 hours after incubation. All samples were tested in triplicate.¹⁰

[†]The precorneal residence time was measured in an ex vivo model. Freshly excised porcine corneas were placed in a perfusion chamber and viewed under a fluorescent microscope attached to a digital camera. To measure the precorneal residence time, 10 µl of the test formulations (perfluorohexyloctane and perfluorobutylpentane) containing the fluorescent dye BODIPY (at a concentration of 0.05%) was applied to the center of each cornea (n = 3), and the fluorescence was recorded for up to 60 minutes. The percentage decrease in fluorescence intensity correlating to the percentage of the test formulation remaining on the corneal surface was plotted against time.¹⁰

The clinical significance of this data has not been established.

The active ingredient in MIEBO works on its own to inhibit evaporation—it's 100% perfluorohexyloctane with NO vehicle¹

IMPORTANT SAFETY INFORMATION (CONTINUED)

- The most common ocular adverse reaction was blurred vision (1% to 3% of patients reported blurred vision and conjunctival redness)

You are encouraged to report negative side effects of prescription drugs to the FDA.

Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

Please see additional Important Safety Information on previous page.

Click here for full Prescribing Information for MIEBO.

References: 1. MIEBO. Prescribing Information. Bausch & Lomb, Inc; 2023. 2. Vittitow J, Kissling R, DeCory H, Borchman D. In vitro inhibition of evaporation with perfluorohexyloctane, an eye drop for dry eye disease. *Curr Ther Res Clin Exp.* 2023;98:100704. doi:10.1016/j.curtheres.2023.100704 3. Meinert H, Roy T. Semifluorinated alkanes – a new class of compounds with outstanding properties for use in ophthalmology. *Eur J Ophthalmol.* 2000;10(3):189–197. doi:10.5301/EJO.2008.1838 4. Schmid D, Bata AM, Szegedi S, et al. Influence of perfluorohexyloctane eye drops on tear film thickness in patients with mild to moderate dry eye disease: a randomized controlled clinical trial. *J Ocul Pharmacol Ther.* 2020;36(3):154–161. doi:10.1089/jop.2019.0092 5. Sheppard JD, Nichols KK. Dry eye disease associated with meibomian gland dysfunction: focus on tear film characteristics and the therapeutic landscape. *Ophthalmol Ther.* 2023;12(3):1397–1418. doi:10.1007/s40123-023-00669-1 6. Krösser S, Spencer E, Grillenberger R, Struble CB, Eickhoff K. Ocular and systemic distribution of ¹⁴C-perfluorohexyloctane following topical ocular administration to rabbits. *Invest Ophthalmol Vis Sci.* 2018;59(9):2656. 7. Agarwal P, Khun D, Krösser S, et al. Preclinical studies evaluating the effect of semifluorinated alkanes on ocular surface and tear fluid dynamics. *Ocul Surf.* 2019;17(2):241–249. doi:10.1016/j.jtos.2019.02.010 8. Tauber J, Berdy GJ, Wirta DL, Krösser S, Vittitow JL; GOBI Study Group. NOV03 for dry eye disease associated with meibomian gland dysfunction: results of the randomized phase 3 GOBI study. *Ophthalmology.* 2023;130(5):516–524. doi:10.1016/j.ophtha.2022.12.021 9. Sheppard JD, Kurata F, Epitropoulos AT, Krösser S, Vittitow JL; MOJAVE Study Group. NOV03 for signs and symptoms of dry eye disease associated with meibomian gland dysfunction: the randomized phase 3 MOJAVE study. *Am J Ophthalmol.* 2023;252:265–274. doi:10.1016/j.ajo.2023.03.008 10. Agarwal P, Scherer D, Günther B, Rupenthal ID. Semifluorinated alkane based systems for enhanced corneal penetration of poorly soluble drugs. *Int J Pharm.* 2018;538(1–2):119–129. doi:10.1016/j.jpharm.2018.01.019 11. Tsagogiorgas C, Krebs J, Pukelsheim M, et al. Semifluorinated alkanes—a new class of excipients suitable for pulmonary drug delivery. *Eur J Pharm Biopharm.* 2010;76(1):75–82. doi:10.1016/j.ejpb.2010.05.011

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Miebo[™]
(perfluorohexyloctane
ophthalmic solution)