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Draft Guidance on Perfluorohexyloctane

February 2026

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In general, FDA’s guidance documents do not establish legally enforceable responsibilities. Instead, guidances describe the Agency’s current thinking on a topic and should be viewed only as recommendations, unless specific regulatory or statutory requirements are cited. The use of the word *should* in Agency guidances means that something is suggested or recommended, but not required.

Active Ingredient:	Perfluorohexyloctane
Dosage Form:	Solution/drops
Route:	Ophthalmic
Strength:	1.338 gm/mL
Recommended Study:	Request for waiver of in vivo bioequivalence study requirements

To qualify for a waiver from submitting an in vivo bioequivalence study on the basis that bioequivalence is self-evident under 21 CFR 320.22(b)(1), a generic perfluorohexyloctane ophthalmic solution product should be qualitatively (Q1)¹ and quantitatively (Q2)² the same as the reference listed drug (RLD).

An applicant may seek approval of a drug product intended for ophthalmic use that differs from the RLD in preservative, buffer, substance to adjust tonicity, or thickening agent provided that the applicant identifies and characterizes the differences and provides information demonstrating that the differences do not affect the safety or efficacy of the proposed drug product.³

¹ Q1 (Qualitative sameness) means that the test product uses the same inactive ingredient(s) as the RLD.

² Q2 (Quantitative sameness) means that concentrations of the inactive ingredient(s) used in the test products are within $\pm 5\%$ of those used in the RLD.

³ FDA has determined that any qualitative or quantitative deviations from the RLD regarding the inactive ingredients specified in 21 CFR 314.94(a)(9)(iv) require scientific justification. This justification should address the potential impact on bioequivalence of the proposed test product and inform the determination of whether appropriate in vivo bioequivalence studies are necessary. Prospective applicants are advised to submit a pre- Abbreviated New Drug Application (ANDA) development meeting request to discuss the justification for any such deviations and the intended approach to demonstrate bioequivalence.

Perfluorohexyloctane ophthalmic solution products should have comparable physicochemical properties to the reference standard (RS) including but not limited to specific gravity, viscosity, and surface tension, if applicable. Comparative analysis should be performed on three exhibit batches of both test product and RS, if available.⁴

Additional comments:

Device:

The RLD is presented in a bottle with a dropper tip. The bottle with dropper tip is the device constituent part. FDA recommends that prospective applicants examine the size and shape, the external critical design attributes, and the external operating principles of the RLD device when designing the test device.

User interface assessment:

An ANDA for this product should include complete comparative analyses so FDA can determine whether any differences in design for the user interface of the proposed generic product, as compared to the RLD, are acceptable and whether the product can be expected to have the same clinical effect and safety profile as the RLD when administered to patients under the conditions specified in the labeling. For additional information, refer to the most recent version of the guidance for industry *Comparative Analyses and Related Comparative Use Human Factors Studies for a Drug-Device Combination Product Submitted in an ANDA*.^a

Quality assessment:

For quality-related recommendations for supporting drug product development, refer to the most recent version of the guidance for industry *Quality Considerations for Topical Ophthalmic Drug Products*.^a

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^a For the most recent version of a guidance, refer to the FDA guidance website at <https://www.fda.gov/regulatory-information/search-fda-guidance-documents>.

⁴ Evaluating fewer than three lots of the RS may be acceptable if the prospective applicant provides sufficient justification and supporting evidence demonstrating that additional RS lots are unavailable. However, data from a minimum of three batches of the test product must be included in the ANDA.