

## PRODUCT MONOGRAPH

<sup>Pr</sup>Sandoz Fluorometholone

(Fluorometholone 0.1% Ophthalmic Suspension), USP

Corticosteroid

Sandoz Canada Inc.,  
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(fluorometholone 0.1% ophthalmic suspension), USP

## **THERAPEUTIC CLASSIFICATION**

Corticosteroid

## **ACTION AND CLINICAL PHARMACOLOGY**

Fluorometholone inhibits the inflammatory response to chemical, immunological or mechanical irritants.

## **INDICATIONS AND CLINICAL USE**

For steroid responsive inflammation of palpebral and bulbar conjunctiva, cornea and anterior segment of globe.

## **CONTRAINDICATIONS**

Tuberculosis of the eye, fungal diseases of the eye, acute superficial herpes simplex keratitis; and most viral diseases of the cornea and conjunctiva. Acute untreated purulent ocular infections. Hypersensitivity to the constituents of this medication.

## **WARNINGS**

Use of topical corticosteroid may cause increased intraocular pressure in certain individuals. It is necessary that the intraocular pressure be checked frequently and particularly in patients with a history of glaucoma or with a family history of glaucoma. If sensitivity or other untoward reactions occur, discontinue the medication. Prolonged use may result in glaucoma, damage to the optic nerve, defects in visual acuity and visual field, posterior subcapsular cataract formation, or may aid in the establishment of secondary ocular infection from pathogens liberated from ocular tissue. In those diseases causing thinning of the cornea, or sclera, perforation has been known to occur with the use of topical steroids.

### Use in Pregnancy:

Safety of the use of topical steroids during pregnancy has not been established.

## **PRECAUTIONS**

Fungal invasion is a possibility in any persistent corneal ulceration, occurring when long term steroid therapy has been or is presently underway. Intraocular pressure should be checked periodically. Prolonged use of steroids may increase intraocular pressure. In diseases due to microorganisms, the infection may be masked, enhanced, or activated by corticosteroids. Whenever there is a possibility of infection, supplemental therapy with suitable antibiotic agents should be considered. Patients should be advised to inform their physicians of any prior use of corticosteroids.

## **ADVERSE REACTIONS**

Glaucoma with optic nerve damage, visual acuity or field defects, posterior subcapsular cataract formation, secondary ocular infection from pathogens liberated from ocular tissues, perforation of the globe. Rarely, filtering blebs have been reported when topical steroids have been used following cataract surgery. Occasionally, stinging or burning may occur.

## **OVERDOSAGE**

For management of suspected drug overdose, consult your regional poison control centre.
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There is no known treatment of overdose since overdose in the use of topical ophthalmic drops is a remote possibility. Discontinue medication when heavy or protracted use is suspected.

## **STORAGE AND STABILITY**

Store at 15 – 25° C. Protect from freezing. Avoid excessive heat. Store in carton until fully used.

## **DOSAGE AND ADMINISTRATION**

1 or 2 drops instilled into the conjunctival sac two to four times daily. During the initial 24 to 48 hours the dosage may be safely increased to 2 drops every hour.

Shake well prior to use. After cap is removed: if tamper evident snap collar is loose, remove before using product.

## **DOSAGE FORMS, COMPOSITION AND PACKAGING**

Sandoz Fluorometholone (fluorometholone 0.1%) ophthalmic suspension is supplied in multiple dosage unit of 5 mL natural low density polyethylene (LDPE) bottle with a natural LDPE dispensing plug and a white polypropylene cap. Tamper evidence is provided by a closure with an extended skirt that locks to the bottle finish on application and breaks away from the closure on opening. The product should be stored upright.

Sandoz Fluorometholone (fluorometholone) ophthalmic suspension contains the active ingredient fluorometholone 0.1%, the preservative benzalkonium chloride 0.01% and the non-medicinal ingredients (alphabetically): Anhydrous Disodium Phosphate, Edetate Disodium, Hypromellose, Polysorbate 80, Polyvinyl Alcohol, Purified Water, Sodium Chloride, Sodium Dihydrogen Phosphate Monohydrate, Sodium Hydroxide and/or Hydrochloric Acid (to adjust pH).

## PHARMACEUTICAL INFORMATION

### Drug Substance

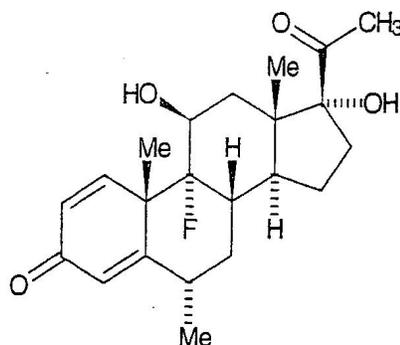
Proper name: Fluorometholone

Chemical Name: 9-Fluoro-11 $\beta$ , 17-dihydroxy-6 $\alpha$ -methylpregna-1,4-diene-3, 20-dione.

Molecular Formula: C<sub>22</sub>H<sub>29</sub>FO<sub>4</sub>

Molecular Weight: 376.47

Structural Formula:



Description: Fluorometholone is an odorless, yellow to off-white crystalline powder which is soluble in alcohol and insoluble in water. The characteristic Ultra Violet absorption maximum is found at 239 nanometers. The melting point is 280°C.

### DETAILED PHARMACOLOGY

When tested in monkeys, fluorometholone was found to be two to three times more potent than hydrocortisone acetate in tests of catabolic effects(1). In the inhibition of rat granuloma, the anti-inflammatory effect of fluorometholone was found to be as much as 100-135 times greater than that of hydrocortisone(2). In healthy adult rabbits, fluorometholone was found to penetrate into the cornea and aqueous humor (3).

### TOXICOLOGY

When studied in rats, topically applied fluorometholone in doses five times greater than proposed in humans, was not absorbed in sufficient quantities to affect the concentration of corticosteroids in the bloodstream (4) . Twenty-one day studies of topical ocular application in healthy rabbits of up to ten times the proposed dosage in humans demonstrated the tolerance for the drug. No

differences were noted between the ocular structures of the controls and the experimental group (5).

## REFERENCES

1. Duncan, G.W. and Stucki, J.C.: Catabolic Activity of Steroidal Anti-Inflammatory Compound. *Metabolism* 11:940-945, 1962.
2. Glenn, E.M., Miller, W.L., and Schagel, C.A.: Metabolic Effects of Adrenocortical Steroids in Vivo and in Vitro; Relationship to Anti-inflammatory Effects. *Rec. Progr. Horm. Res.*, 107, G. Pincus ed., Academic Press, New York, 1963.
3. Kupferman, A. and Leibowitz, H.: Penetration of Fluorometholone into the Cornea and Aqueous Humor, *Arch. of Ophthal.*, 2i:425-427, June 1975.
4. Alcon Laboratories Inc.: Relazione Tossicologica, e Farmacologica del prodotto Flumetol - S. 1975.
5. Ibid.