# FLUORESCEIN SODIUM AND BENOXINATE HYDROCHLORIDE- fluorescein sodium and benoxinate hydrochloride solution/ drops
Bausch & Lomb Americas Inc.

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**HIGHLIGHTS OF PRESCRIBING INFORMATION**
**These highlights do not include all the information needed to use FLUORESCEIN SODIUM AND BENOXINATE HYDROCHLORIDE OPHTHALMIC SOLUTION, 0.3%/0.4% safely and effectively. See full prescribing information for FLUORESCEIN SODIUM AND BENOXINATE HYDROCHLORIDE OPHTHALMIC SOLUTION, 0.3%/0.4%.**

**FLUORESCEIN SODIUM AND BENOXINATE HYDROCHLORIDE OPHTHALMIC SOLUTION, 0.3%/0.4%, for topical ophthalmic use**

**Initial U.S. Approval: 2017**

**INDICATIONS AND USAGE**

Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% is a combination of fluorescein sodium, a disclosing agent and benoxinate hydrochloride, a local ester anesthetic indicated for procedures in adult and pediatric patients requiring a disclosing agent in combination with a topical ophthalmic anesthetic. ( 1)

**DOSAGE AND ADMINISTRATION**

Instill 1 to 2 drops topically in the eye as needed to achieve adequate anesthesia. ( 2)

**DOSAGE FORMS AND STRENGTHS**

Ophthalmic solution containing fluorescein sodium 2.6 mg/mL (0.3%) and benoxinate hydrochloride 4.4 mg/mL (0.4%). ( 3)

**CONTRAINDICATIONS**

Known hypersensitivity to any component of this product. ( 4)

**WARNINGS AND PRECAUTIONS**

- Corneal Toxicity: Prolonged use or abuse may lead to corneal epithelial toxicity and manifest as epithelial defects which may progress to permanent corneal damage. ( 5.1)
- Corneal Injury: Patients should not touch the eye for approximately 20 minutes after using anesthetic as accidental injuries can occur due to insensitivity of the eye. ( 5.2)

**ADVERSE REACTIONS**

The most common ocular adverse events are: stinging, burning and conjunctival redness. ( 6)
**To report SUSPECTED ADVERSE REACTIONS, contact Bausch & Lomb Incorporated at 1-800-553-5340 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.**
**See 17 for PATIENT COUNSELING INFORMATION.**

**Revised: 8/2022**

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## FULL PRESCRIBING INFORMATION

## 1 INDICATIONS AND USAGE

Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% is indicated for ophthalmic procedures in adult and pediatric patients requiring a disclosing agent in combination with a topical ophthalmic anesthetic agent.

## 2 DOSAGE AND ADMINISTRATION

Instill 1 to 2 drops topically in the eye as needed.

## 3 DOSAGE FORMS AND STRENGTHS

Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% is a yellow to orange-red ophthalmic solution containing fluorescein sodium 2.6 mg/mL (0.3%) and benoxinate hydrochloride 4.4 mg/mL (0.4%).

## 4 CONTRAINDICATIONS

Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% is contraindicated in patients with known hypersensitivity to any component of this product.

## 5 WARNINGS AND PRECAUTIONS

### 5.1 Corneal Toxicity

Prolonged use or abuse may lead to corneal epithelial toxicity and may manifest as epithelial defects which may progress to permanent corneal damage with accompanying visual loss.

### 5.2 Corneal Injury Due to Insensitivity

Patients should not touch the eye for approximately 20 minutes after using this anesthetic as accidental injuries can occur due to insensitivity of the eye.

## 6 ADVERSE REACTIONS

The following serious ocular adverse reactions are described elsewhere in the labeling:

- Corneal Toxicity *[see Warnings and Precautions (5.1)]*
- Corneal Injury Due to Insensitivity *[see Warnings and Precautions (5.2)]*

The following adverse reactions have been identified following use of Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4%: ocular hyperemia, burning, stinging, eye irritation, blurred vision and punctate keratitis. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

## 8 USE IN SPECIFIC POPULATIONS

### 8.1 Pregnancy

Risk Summary

There are no available data on the use of Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% in pregnant women to inform any drug associated risk.

Adequate animal reproduction studies have not been conducted with fluorescein sodium and/or benoxinate hydrochloride. Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% should be given to a pregnant woman only if clearly needed.

### 8.2 Lactation

Risk Summary

There are no data on the presence of fluorescein sodium or benoxinate hydrochloride in human milk after ocular administration of Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4%, the effects on the breastfed infant, or the effects on milk production.

The developmental and health benefits of breastfeeding should be considered, along with the mother’s clinical need for Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4%, and any potential adverse effects on the breastfed infant from Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4%.

### 8.4 Pediatric Use

The safety and effectiveness of Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% have been established for pediatric patients. Use of

Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% is supported in pediatric patients by evidence from adequate and well controlled studies.

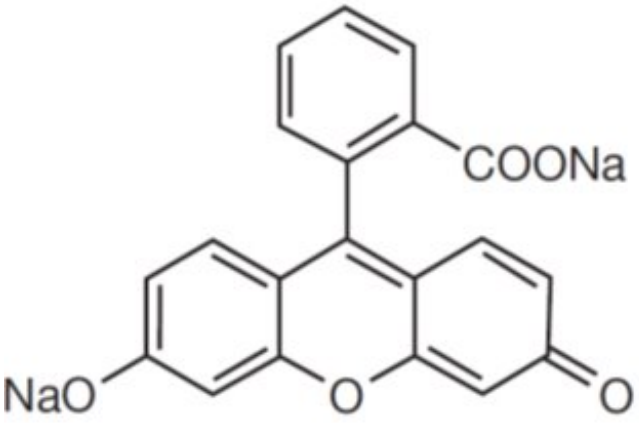
### 8.5 Geriatric Use

No overall differences in safety or effectiveness have been observed between elderly and younger patients.

## 11 DESCRIPTION

Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% is a sterile solution containing a disclosing agent in combination with a short-acting ester anesthetic for topical ophthalmic use.

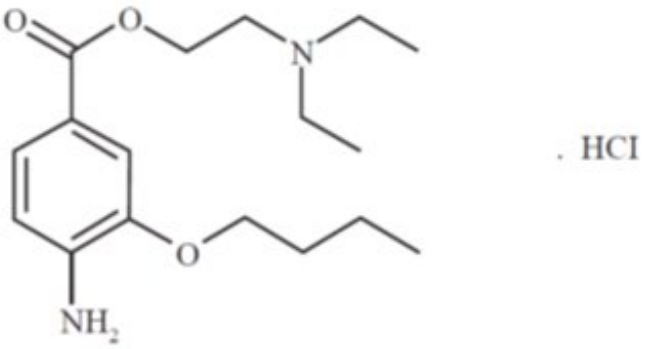
Fluorescein sodium is represented by the following structural formula:




$C_{20}H_{10}Na_2O_5$ Mol. Wt. 376.3

Chemical Name: 3',6' Dihydroxy-3H-spiro[isobenzofuran-1,9-xanthen]-3-one disodium salt.

Benoxinate hydrochloride is represented by the following structural formula:




. HCl

$C_{17}H_{28}N_2O_3 \bullet HCl$ Mol. Wt. 344.88

Chemical Name: 2-(Diethylamino) ethyl 4-amino-3-butoxybenzoate hydrochloride.

Each mL of Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution 0.3%/0.4% contains:

- Active ingredients: fluorescein sodium 2.6 mg (0.3%) equivalent to fluorescein 2.3 mg (0.2%), benoxinate hydrochloride 4.4 mg (0.4%) equivalent to benoxinate 3.9 mg (0.4%)
- Preservative: chlorobutanol 12.6 mg (1.3%)
- Inactive ingredients: povidone, hydrochloric acid, boric acid, water for injection. Hydrochloric acid may be added to adjust pH (4.3 – 5.3).

## 12 CLINICAL PHARMACOLOGY

### 12.2 Pharmacodynamics

Maximal corneal anesthesia usually occurs in about 5-45 seconds and lasts about 20 minutes after single administration. The anesthetic effect may be extended by subsequent administration 10-20 minutes after the last administration.

## 13 NONCLINICAL TOXICOLOGY

### 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Studies to evaluate the mutagenic or carcinogenic potential of Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% have not been conducted. Studies to evaluate impairment of fertility have not been conducted.

## 14 CLINICAL STUDIES

Controlled clinical studies in adults and pediatric patients have demonstrated that topical administration of Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% enables visualization and corneal anesthesia sufficient to enable applanation tonometry, tear fluid dynamics evaluation and short conjunctival and corneal procedures. Maximal corneal anesthesia usually occurs in about 5-45 seconds and lasts about 20 minutes after single administration.

## 16 HOW SUPPLIED/STORAGE AND HANDLING

Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% is supplied as a sterile, aqueous, topical ophthalmic solution with a fill volume of 5 mL in a 6 mL amber glass bottle and a black polypropylene cap with a sterilized rubber dropper bulb and glass pipette.

NDC 82260-734-05

**Storage:** Store in a refrigerator at 2°C to 8°C (36°F to 46°F). Protect from light. After opening, can be stored up to one month if stored at room temperature or until the expiration date on the bottle if stored in refrigerated conditions. Keep tightly closed.

## 17 PATIENT COUNSELING INFORMATION

Accidental Injury Precaution

Advise patients not to touch their eyes for approximately 20 minutes after application. Their eyes will be insensitive due to the effect of the anesthetic, and care should be taken to avoid accidental injuries.

**Distributed by:**

Bausch & Lomb Americas Inc.

Bridgewater, NJ 08807 USA

**Manufactured by:**

Siegfried-Irvine

Irvine, CA 92618 USA

Patented. See https://patents.bausch.com for US patent information.



9785200

**PACKAGE/LABEL PRINCIPAL DISPLAY PANEL**

**NDC** 82260-734-05

**Fluorescein Sodium**

**and Benoxinate**

**Hydrochloride**

**Ophthalmic Solution**

**0.3%/0.4%**

(Sterile)

**FOR TOPICAL OPHTHALMIC USE**

**Rx only**

**5 mL**

**BAUSCH + LOMB**

97850000


# FLUORESCEIN SODIUM AND BENOXINATE HYDROCHLORIDE

fluorescein sodium and benoxinate hydrochloride solution/ drops

| Product Information | | | |
|---|---|---|---|
| **Product Type** | HUMAN PRESCRIPTION DRUG | **Item Code (Source)** | NDC:82260-734 |
| **Route of Administration** | OPHTHALMIC | | |

| Active Ingredient/Active Moiety | | |
|---|---|---|
| **Ingredient Name** | **Basis of Strength** | **Strength** |
| **FLUORESCEIN SODIUM** (UNII: 93X55PE38X) (FLUORESCEIN - UNII:TPY09G7XIR) | FLUORESCEIN SODIUM | 2.6 mg in 1 mL |
| **BENOXINATE HYDROCHLORIDE** (UNII: 0VE4U49K15) (BENOXINATE - UNII:AXQ0JYM303) | BENOXINATE HYDROCHLORIDE | 4.4 mg in 1 mL |

## Inactive Ingredients

| Ingredient Name | Strength |
|---|---|
| **POVIDONE, UNSPECIFIED** (UNII: FZ989GH94E) | |
| **BORIC ACID** (UNII: R57ZHV85D4) | |
| **WATER** (UNII: 059QF0KO0R) | |

## Packaging

| # | Item Code | Package Description | Marketing Start Date | Marketing End Date |
|---|---|---|---|---|
| **1** | NDC:82260-734-05 | 1 in 1 CARTON | 03/20/2020 | |
| **1** | | 5 mL in 1 BOTTLE, GLASS; Type 0: Not a Combination Product | | |

## Marketing Information

| Marketing Category | Application Number or Monograph Citation | Marketing Start Date | Marketing End Date |
|---|---|---|---|
| NDA authorized generic | NDA211039 | 03/20/2020 | |

## Labeler - Bausch & Lomb Americas Inc. (118287629)

## Establishment

| Name | Address | ID/FEI | Business Operations |
|---|---|---|---|
| Alliance Medical Products, Inc. (dba Siegfried Irvine) | | 102688657 | manufacture(82260-734) |

Revised: 3/2023 Bausch & Lomb Americas Inc.