# FLUORESCEIN SODIUM AND BENOXINATE HYDROCHLORIDE- fluorescein sodium and benoxinate hydrochloride solution/ drops

**Bausch & Lomb Incorporated** 

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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

- <u>Corneal Toxicity</u>: Prolonged use or abuse may lead to corneal epithelial toxicity and manifest as epithelial defects which may progress to permanent corneal damage. (5.1)
- <u>Corneal Injury</u>: 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)

 $To\ report\ SUSPECTED\ ADVERSE\ REACTIONS, contact\ Bausch\ \&\ Lomb, a\ Division\ of\ Valeant\ Pharmaceuticals\ North\ America\ LLC, or\ FDA\ at\ 1-800\ -FDA-1088\ or\ www.fda.gov/medwatch.$ 

See 17 for PATIENT COUNSELING INFORMATION.

Revised: 3/2020

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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

<sup>\*</sup> Sections or subsections omitted from the full prescribing information are not listed.

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

#### 8.2 Lactation

#### 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<sub>20</sub>H<sub>10</sub>Na<sub>2</sub>O<sub>5</sub> 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:

C<sub>17</sub>H<sub>28</sub>N<sub>2</sub>O<sub>3</sub> • 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:

- <u>Active ingredients:</u> 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%)
- <u>Inactive ingredients:</u> 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 24208-734-05

**Storage**: Store in a refrigerator at 2°C to 8°C (36°F to 46°F). Protect from light. After opening, Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution, 0.3%/0.4% 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.

Manufactured for and Distributed by:

Paragon BioTeck, Inc.

4640 SW Macadam Ave, Ste 80

Portland, OR 97239

Manufactured by:

Siegfried-Irvine,

9342 Jeronimo Road,

Irvine, CA 92618

#### PACKAGE/LABEL PRINCIPAL DISPLAY PANEL

NDC 24208-734-05

Paragon

BioTeck, Inc.

Fluorescein

Sodium and

Benoxinate

Hydrochloride

Ophthalmic

Solution,

0.3%/0/4%

Rx Only

5 mL



# FLUORESCEIN SODIUM AND BENOXINATE HYDROCHLORIDE

fluorescein sodium and benoxinate hydrochloride solution/ drops

Product Information				
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:24208-734	
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	
BENO XINATE HYDRO CHLO RIDE (UNII: 0 VE4U49 K15) (BENO XINATE - UNII: AXQ0 JYM30 3)	BENOXINATE HYDROCHLORIDE	4.4 mg in 1 mL	

Inactive Ingredients			
Ingredient Name	Strength		
PO VIDONE, UNSPECIFIED (UNII: FZ989GH94E)			
BORIC ACID (UNII: R57ZHV85D4)			
WATER (UNII: 059QF0KO0R)			

P	Packaging			
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:24208-734- 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	NDA211039	03/20/2020		

# Labeler - Bausch & Lomb Incorporated (196603781)

Establishment				
Name	Address	ID/FEI	<b>Business Operations</b>	
Alliance Medical Products, Inc. (dba Siegfried Irvine)		102688657	MANUFACTURE(24208-734)	

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