

OLOPATADINE- olopatadine hydrochloride solution/ drops

Akorn

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% safely and effectively. See full prescribing information for Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2%.

Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2%

Initial U.S. Approval: 1996

----- **INDICATIONS AND USAGE** -----

Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% is a mast cell stabilizer indicated for the treatment of ocular itching associated with allergic conjunctivitis. (1)

----- **DOSAGE AND ADMINISTRATION** -----

The recommended dose is one drop in each affected eye once a day. (2)

----- **DOSAGE FORMS AND STRENGTHS** -----

Ophthalmic solution 0.2%: each mL contains 2.22 mg of olopatadine hydrochloride. (3)

----- **WARNINGS AND PRECAUTIONS** -----

For topical ocular use only. Not for injection or oral use. (5.1)

----- **ADVERSE REACTIONS** -----

Symptoms similar to cold syndrome and pharyngitis were reported at an incidence of approximately 10%. (6)

To report SUSPECTED ADVERSE REACTIONS, contact Akorn, Inc. at 1-800-932-5676 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

See 17 for PATIENT COUNSELING INFORMATION.

Revised: 12/2017

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* Sections or subsections omitted from the full prescribing information are not listed.

FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% is indicated for the treatment of ocular itching associated with allergic conjunctivitis.

2 DOSAGE AND ADMINISTRATION

The recommended dose is one drop in each affected eye once a day.

3 DOSAGE FORMS AND STRENGTHS

Ophthalmic solution 0.2%: each mL contains 2.22 mg of olopatadine hydrochloride.

4 CONTRAINDICATIONS

None.

5 WARNINGS AND PRECAUTIONS

5.1 For topical ocular use only

Not for injection or oral use.

5.2 Contamination of Tip and Solution

As with any eye drop, to prevent contaminating the dropper tip and solution, care should be taken not to touch the eyelids or surrounding areas with the dropper tip of the bottle. Keep bottle tightly closed when not in use.

5.3 Contact Lens Use

Patients should be advised not to wear a contact lens if their eye is red.

Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% should not be used to treat contact lens related irritation.

The preservative in Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2%, benzalkonium chloride, may be absorbed by soft contact lenses. Patients who wear soft contact lenses and whose eyes are not red, should be instructed to wait at least ten minutes after instilling Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% before they insert their contact lenses.

6 ADVERSE REACTIONS

Symptoms similar to cold syndrome and pharyngitis were reported at an incidence of approximately 10%.

The following adverse experiences have been reported in 5% or less of patients:

Ocular: blurred vision, burning or stinging, conjunctivitis, dry eye, foreign body sensation, hyperemia, hypersensitivity, keratitis, lid edema, pain and ocular pruritus.

Non-ocular: asthenia, back pain, flu syndrome, headache, increased cough, infection, nausea, rhinitis, sinusitis and taste perversion.

Some of these events were similar to the underlying disease being studied.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Teratogenic effects: Pregnancy Category C

Olopatadine was found not to be teratogenic in rats and rabbits. However, rats treated at 600 mg/kg/day, or 150,000 times the MROHD and rabbits treated at 400 mg/kg/day, or approximately 100,000 times the MROHD, during organogenesis showed a decrease in live fetuses. In addition, rats treated with 600 mg/kg/day of olopatadine during organogenesis showed a decrease in fetal weight. Further, rats treated with 600 mg/kg/day of olopatadine during late gestation through the lactation period showed a decrease in neonatal survival and body weight. There are, however, no adequate and well-controlled studies in pregnant women. Because animal studies are not always predictive of human responses, this drug should be used in pregnant women only if the potential benefit to the mother justifies the potential risk to the embryo or fetus.

8.3 Nursing Mothers

Olopatadine has been identified in the milk of nursing rats following oral administration. It is not known whether topical ocular administration could result in sufficient systemic absorption to produce detectable quantities in the human breast milk. Nevertheless, caution should be exercised when Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% is administered to a nursing mother.

8.4 Pediatric Use

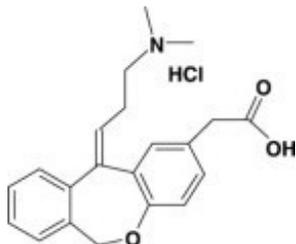
Safety and effectiveness in pediatric patients below the age of 2 years have not been established.

8.5 Geriatric Use

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

11 DESCRIPTION

Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% is a sterile ophthalmic solution containing olopatadine for topical administration to the eyes. Olopatadine hydrochloride is a white, crystalline, water-soluble powder with a molecular weight of 373.88 and a molecular formula of $C_{21}H_{23}NO_3 \cdot HCl$. The chemical structure is presented below:



Chemical Name: 11-[(Z)-3-(Dimethylamino) propylidene]-6-11-dihydrodibenz[b,e] oxepin-2- acetic acid, hydrochloride

Each mL of Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% contains: Active: 2.22 mg Olopatadine Hydrochloride equivalent to 2 mg Olopatadine. Inactives: Povidone; Dibasic Sodium Phosphate; Sodium Chloride; Edetate Disodium; Benzalkonium Chloride 0.01% (**Preservative**); Hydrochloric Acid/Sodium Hydroxide (adjust pH); and Water for Injection.

It has a pH of approximately 7 and an osmolality of approximately 300 mOsm/kg.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Olopatadine is a mast cell stabilizer and a histamine H1 antagonist. Decreased chemotaxis and inhibition of eosinophil activation has also been demonstrated.

12.3 Pharmacokinetics

Systemic bioavailability data upon topical ocular administration of Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% solution are not available. Following topical ocular administration of olopatadine 0.15% ophthalmic solution in man, olopatadine was shown to have a low systemic exposure. Two studies in normal volunteers (totaling 24 subjects) dosed bilaterally with olopatadine 0.15% ophthalmic solution once every 12 hours for 2 weeks demonstrated plasma concentrations to be generally below the quantitation limit of the assay (< 0.5 ng/mL). Samples in which olopatadine was quantifiable were typically found within 2 hours of dosing and ranged from 0.5 to 1.3 ng/mL. The elimination half-life in plasma following oral dosing was 8 to 12 hours, and elimination was predominantly through renal excretion. Approximately 60 to 70% of the dose was recovered in the urine as parent drug. Two metabolites, the mono-desmethyl and the N-oxide, were detected at low concentrations in the urine.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Olopatadine administered orally was not carcinogenic in mice and rats in doses up to 500 mg/kg/day and 200 mg/kg/day, respectively. Based on a 40 µL drop size and a 50 kg person, these doses were approximately 150,000 and 50,000 times higher than the maximum recommended ocular human dose (MROHD). No mutagenic potential was observed when olopatadine was tested in an *in vitro* bacterial reverse mutation (Ames) test, an *in vitro* mammalian chromosome aberration assay or an *in vivo* mouse micronucleus test. Olopatadine administered to male and female rats at oral doses of approximately 100,000 times MROHD level resulted in a slight decrease in the fertility index and reduced implantation rate; no effects on reproductive function were observed at doses of approximately 15,000 times the MROHD level.

14 CLINICAL STUDIES

Results from clinical studies of up to 12 weeks duration demonstrate that Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% when dosed once a day is effective in the treatment of ocular itching associated with allergic conjunctivitis.

16 HOW SUPPLIED/STORAGE AND HANDLING

Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% is supplied in a 10 mL white, low density polyethylene (LDPE) bottle with a dropper tip, and a white polypropylene cap in the following size:

NDC 17478-305-12 2.5 mL in 10 mL bottle

STORAGE:

Store at 4° to 25°C (39° to 77°F).

17 PATIENT COUNSELING INFORMATION

17.1 Topical Ophthalmic Use Only

For topical ophthalmic administration only.

17.2 Sterility of Dropper Tip

Patients should be advised to not touch dropper tip to any surface, as this may contaminate the contents.

17.3 Concomitant Use of Contact Lenses

Patients should be advised not to wear a contact lens if their eyes are red. Patients should be advised that Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% should not be used to treat contact lens-related irritation. Patients should also be advised to remove contact lenses prior to instillation of Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2%. The preservative in Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2% benzalkonium chloride may be absorbed by soft contact lenses. Lenses may

be reinserted following administration of Olopatadine Hydrochloride Ophthalmic Solution USP, 0.2%.

Rx only

AKORN

Manufactured by: **Akorn, Inc.**

Lake Forest, IL 60045

OLP00N Rev. 12/17

Principal Display Panel Text for Container Label:

NDC 17478-305-12

Olopatadine HCl

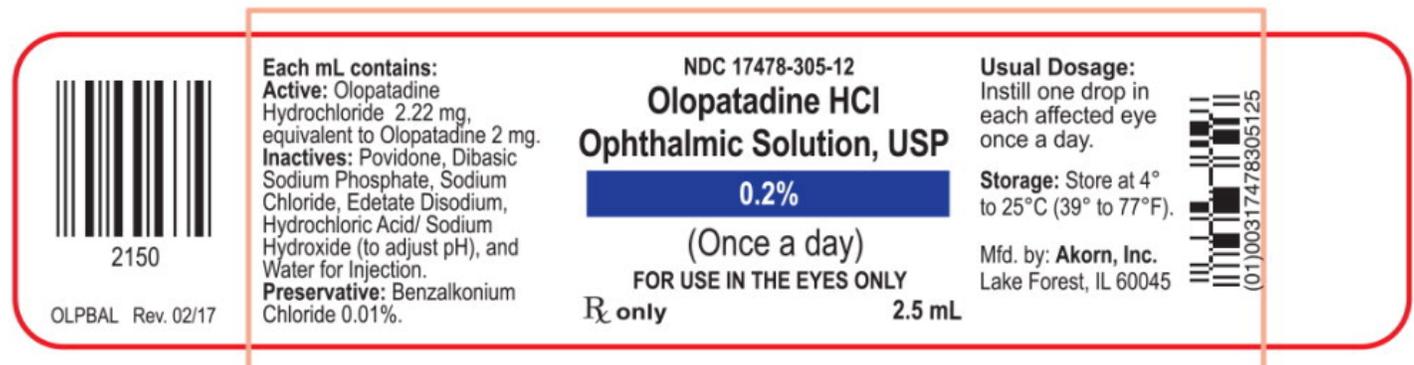
Ophthalmic Solution, USP

0.2%

(Once a day)

FOR USE IN THE EYES ONLY

Rx only 2.5 mL



The image shows a rectangular label with rounded corners, outlined in red. On the left side, there is a standard 1D barcode with the number '2150' printed below it. Below the barcode, the text 'OLPBAL Rev. 02/17' is printed. The main body of the label contains the following text: 'Each mL contains: Active: Olopatadine Hydrochloride 2.22 mg, equivalent to Olopatadine 2 mg. Inactives: Povidone, Dibasic Sodium Phosphate, Sodium Chloride, Edetate Disodium, Hydrochloric Acid/ Sodium Hydroxide (to adjust pH), and Water for Injection. Preservative: Benzalkonium Chloride 0.01%.' In the center, the product name 'Olopatadine HCl Ophthalmic Solution, USP' is printed in a large, bold font. Below this, the concentration '0.2%' is displayed in white text on a blue rectangular background. Underneath the concentration, the text '(Once a day)' and 'FOR USE IN THE EYES ONLY' are printed. At the bottom left of the central area, 'Rx only' is printed, and at the bottom right, '2.5 mL' is printed. On the right side of the label, there is a vertical barcode with the number '(01)00317478305125' printed to its right. Above this vertical barcode, the text 'Usual Dosage: Instill one drop in each affected eye once a day.' is printed. Below the vertical barcode, the text 'Storage: Store at 4° to 25°C (39° to 77°F). Mfd. by: Akorn, Inc. Lake Forest, IL 60045' is printed.

Principal Display Panel Text for Carton Label:

NDC 17478-305-12

Olopatadine

HCl

Ophthalmic

Solution, USP

0.2%

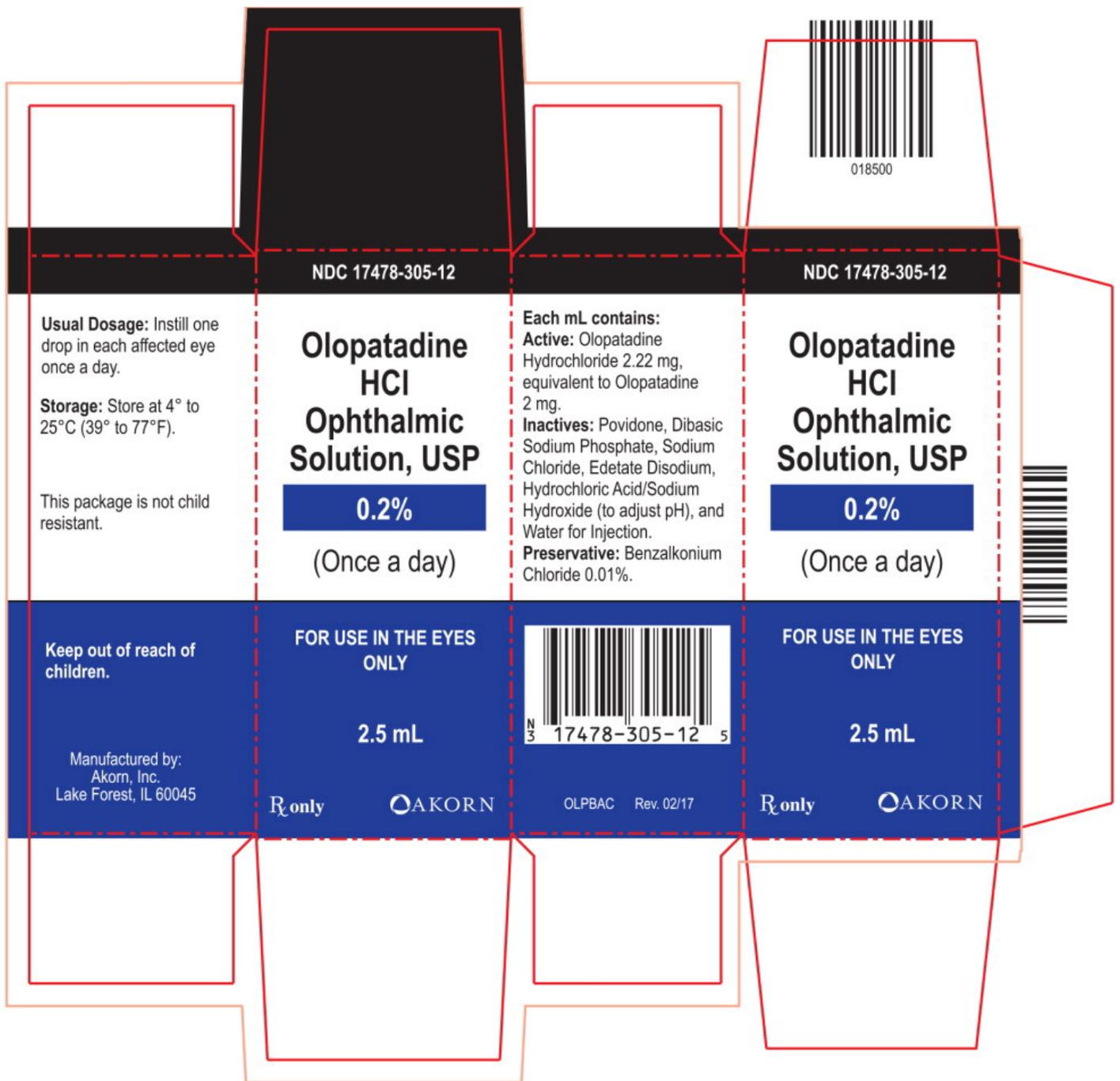
(Once a day)

FOR USE IN THE EYES

ONLY

2.5 mL

Rx only Akorn Logo



OLOPATADINE

olopatadine hydrochloride solution/ drops

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:17478-305
Route of Administration	OPHTHALMIC		

Active Ingredient/Active Moiety				
Ingredient Name		Basis of Strength	Strength	
Olopatadine Hydrochloride (UNII: 2XG66W44KF) (Olopatadine - UNII:D27V6190PM)		Olopatadine	2 mg in 1 mL	
Inactive Ingredients				
Ingredient Name			Strength	
Povidone, Unspecified (UNII: FZ989GH94E)				
Sodium Phosphate, Dibasic, Unspecified Form (UNII: GR686LBA74)				
Sodium Chloride (UNII: 451W47IQ8X)				
Edetate Disodium (UNII: 7FLD91C86K)				
Hydrochloric Acid (UNII: QTT17582CB)				
Sodium Hydroxide (UNII: 55X04QC32I)				
Water (UNII: 059QF0KO0R)				
Benzalkonium Chloride (UNII: F5UM2KM3W7)				
Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:17478-305-12	1 in 1 CARTON	12/05/2017	
1		2.5 mL in 1 BOTTLE, DROPPER; Type 0: Not a Combination Product		
Marketing Information				
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date	
ANDA	ANDA204723	12/05/2017		

Labeler - Akorn (117696770)

Registrant - Akorn Operating Company LLC (117693100)

Establishment			
Name	Address	ID/FEI	Business Operations
Akorn		117696840	MANUFACTURE(17478-305) , ANALYSIS(17478-305) , STERILIZE(17478-305) , PACK(17478-305) , LABEL(17478-305)