OLOPATADINE HYDROCHLORIDE- olopatadine hydrochloride solution/ drops
NuCare Pharmaceuticals,Inc.

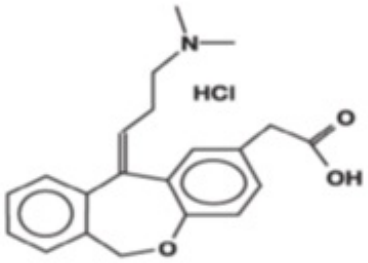
OLOPATADINE Hydrochloride Ophthalmic Solution USP, 0.1%

Somerset Therapeutics, LLC

DESCRIPTION

Olopatadine hydrochloride ophthalmic solution USP, 0.1% is a sterile ophthalmic solution containing olopatadine, a relatively selective H_1 -receptor antagonist and inhibitor of histamine release from the mast cell for topical administration to the eyes. Olopatadine hydrochloride is a white, crystalline, water-soluble powder with a molecular weight of 373.88. 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 contains:

Active: 1.11 mg olopatadine hydrochloride, USP equivalent to 1 mg olopatadine.

Preservative: benzalkonium chloride 0.01%. **Inactives:** dibasic sodium phosphate; sodium chloride; 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.

CLINICAL PHARMACOLOGY

Olopatadine is an inhibitor of the release of histamine from the mast cell and a relatively selective histamine H_1 -antagonist that inhibits the *in vivo* and *in vitro* type 1 immediate hypersensitivity reaction including inhibition of histamine induced effects on human conjunctival epithelial cells. Olopatadine is devoid of effects on alpha-adrenergic, dopamine and muscarinic type 1 and 2 receptors. Following topical ocular administration in man, olopatadine was shown to have 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 half-life in plasma was approximately 3 hours, and elimination

was predominantly through renal excretion. Approximately 60-70% 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.

Results from an environmental study demonstrated that olopatadine hydrochloride ophthalmic solution, 0.1% was effective in the treatment of the signs and symptoms of allergic conjunctivitis when dosed twice daily for up to 6 weeks. Results from conjunctival antigen challenge studies demonstrated that olopatadine hydrochloride ophthalmic solution, 0.1%, when subjects were challenged with antigen both initially and up to 8 hours after dosing, was significantly more effective than its vehicle in preventing ocular itching associated with allergic conjunctivitis.

INDICATIONS AND USAGE

Olopatadine hydrochloride ophthalmic solution USP, 0.1% is indicated for the treatment of the signs and symptoms of allergic conjunctivitis.

CONTRAINDICATIONS

Olopatadine hydrochloride ophthalmic solution, 0.1% is contraindicated in persons with a known hypersensitivity to olopatadine hydrochloride or any components of olopatadine hydrochloride ophthalmic solution, 0.1%.

WARNINGS

Olopatadine hydrochloride ophthalmic solution, 0.1% is for topical use only and not for injection or oral use.

PRECAUTIONS

Information for Patients:

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.

Patients should be advised not to wear a contact lens if their eye is red. Olopatadine hydrochloride ophthalmic solution, 0.1% should not be used to treat contact lens related irritation. The preservative in olopatadine hydrochloride ophthalmic solution 0.1%, 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, 0.1% before they insert their contact lenses.

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 microliter drop size, these doses were 78,125 and 31,250 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 62,500 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 7,800 times the maximum recommended ocular human use level.

Pregnancy:

Pregnancy Category C. Olopatadine was found not to be teratogenic in rats and rabbits. However, rats treated at 600 mg/kg/day, or 93,750 times the MROHD and rabbits treated at 400 mg/kg/day, or 62,500 times the MROHD, during organogenesis showed a decrease in live fetuses. 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.

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, 0.1% is administered to a nursing mother.

Pediatric Use:

Safety and effectiveness in pediatric patients below the age of 3 years have not been established.

Geriatric Use:

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

ADVERSE REACTIONS

Headaches have been reported at an incidence of 7%. The following adverse experiences have been reported in less than 5% of patients: asthenia, blurred vision, burning or stinging, cold syndrome, dry eye, foreign body sensation, hyperemia, hypersensitivity, keratitis, lid edema, nausea, pharyngitis, pruritus, rhinitis, sinusitis, and taste perversion. Some of these events were similar to the underlying disease being studied.

DOSAGE AND ADMINISTRATION

The recommended dose is one drop in each affected eye two times per day at an interval of 6 to 8 hours.

HOW SUPPLIED

Olopatadine hydrochloride ophthalmic solution USP, 0.1% is supplied as follows: 5 mL in

LDPE Bottle.

5 mL: **NDC 68071-5085-5**

Storage: Store at 39°F-77°F (4°C-25°C).

Rx Only

For Product Inquiry call 1-800-417-9175.

Manufactured by: Manufactured for:

Wintac Limited Somerset Therapeutics, LLC

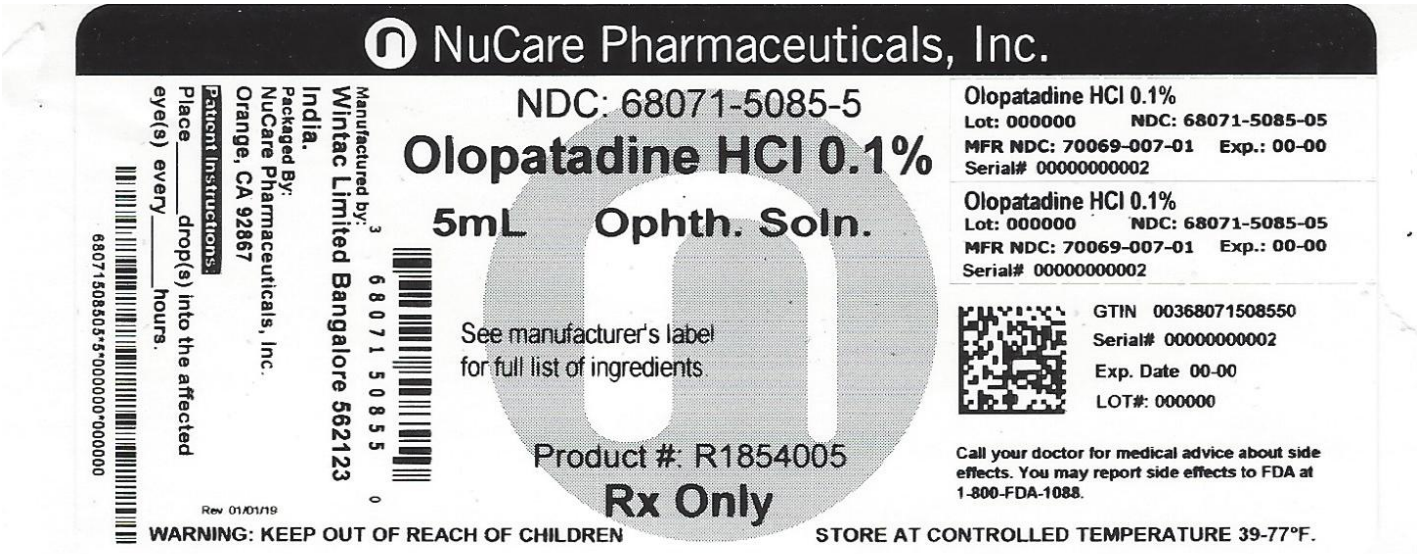
Bangalore 562123 Somerset, NJ 08873

India.

Code No.: KR/DRUGS/KTK/28/289/97 ST-OLP11/P/01

Revised: 09/2018

PACKAGE LABEL.PRINCIPAL DISPLAY PANEL



OLOPATADINE HYDROCHLORIDE

olopatadine hydrochloride solution/ drops

Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	**Item Code (Source)**	NDC:68071-5085(NDC:70069-007)
Route of Administration	OPHTHALMIC		

Active Ingredient/Active Moiety		
Ingredient Name	**Basis of Strength**	**Strength**
OLOPATADINE HYDROCHLORIDE (UNII: 2XG66W44KF) (OLOPATADINE -	OLOPATADINE	1.11 mg

UNII:D27V6190PM)	OLOPATADINE	in 1 mL

Inactive Ingredients

Ingredient Name	Strength
BENZALKONIUM CHLORIDE (UNII: F5UM2KM3W7)	0.1 mg in 1 mL
SODIUM PHOSPHATE, DIBASIC, ANHYDROUS (UNII: 22ADO53M6F)	5 mg in 1 mL
SODIUM CHLORIDE (UNII: 451W47IQ8X)	6.5 mg in 1 mL
SODIUM HYDROXIDE (UNII: 55X04QC32I)	
HYDROCHLORIC ACID (UNII: QTT17582CB)	
WATER (UNII: 059QF0KO0R)	

Product Characteristics

Color	white (A clear, colorless solution)	**Score**	
Shape		**Size**	
Flavor		**Imprint Code**	
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:68071-5085-5	5 mL in 1 BOTTLE; Type 0: Not a Combination Product	10/14/2019	

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA206306	06/29/2016	

Labeler - NuCare Pharmaceuticals,Inc. (010632300)

Establishment

Name	Address	ID/FEI	Business Operations
NuCare Pharmaceuticals,Inc.		010632300	relabel(68071-5085)

Revised: 2/2021 NuCare Pharmaceuticals,Inc.