

## SUMMARY OF PRODUCT CHARACTERISTICS

## 1. Name of the Medicinal Product

### 1.1 Product Name:

Olopatadine Eye drops, Solution (As Hydrochloride)

**RAPIDON** 

## 1.2 Strength

0.2% w/v

## 2. QUALITATIVE AND QUANTITAVE COMPOSITION

Each mL contains:

Olopatadine Hydrochloride USP 2.22mg equivalent to

Olopatadine: 2mg

Benzalkonium chloride: 0.01% w/v (as preservatives)

Water for injection USP: q.s to 1mL

## 3. PHARMACEUTICAL FORM

Eye drops, solution

## 4. CLINICAL PARTICULARS

## 4.1 Therapeutic indications:

Treatment of ocular signs and symptoms of seasonal allergic conjunctivitis

## 4.2 Posology and method of administration:

The dose is one drop of Olopatadine in the conjunctival sac of the affected eye(s) twice daily (8 hourly). Treatment may be maintained for up to four months, if considered necessary.

*Use in elderly* 

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No dosage adjustment in elderly patients is necessary.

Paediatric patients

Olopatadine may be used in paediatric patients three years of age and older at the same dose as in adults. The safety and efficacy of olopatadine in children aged less than 3 years has not been established. No data are available.

Use in hepatic and renal impairment

Olopatadine in the form of eye drops olopatadine has not been studied in patients with renal or hepatic disease. However, no dosage adjustment is expected to be necessary in hepatic or renal impairment.

Method of administration

For ocular use only

After the bottle cap is removed, if the tamper evident snap collar is loose, remove before using the product. To prevent contamination of the dropper tip and solution, care must be taken not to touch the eyelids, surrounding areas, or other surfaces with the dropper tip of the bottle. Keep the bottle tightly closed when not in use.

In case of concomitant therapy with other topical ocular medicines, an interval of five minutes should be allowed between successive applications. Eye ointments should be administered last.

### **4.3 Contraindications:**

Hypersensitivity to the active substance or to any of the excipients

## 4.4 Special warnings and precautions for use:

It is an antiallergic/antihistaminic agent and, although administered topically, is absorbed systemically. If signs of serious reactions or hypersensitivity occur, discontinue the use of this treatment.

It contains benzalkonium chloride which may cause eye irritation.

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Benzalkonium chloride has also been reported to cause punctate keratopathy and/or toxic ulcerative keratopathy. Close monitoring is required with frequent or prolonged use in dry eye patients, or in conditions where the cornea is compromised.

## Contact lenses

Benzalkonium is known to discolour soft contact lenses. Avoid contact with soft contact lenses.

Patients should be instructed to remove contact lenses prior to administration of the eye drop and wait at least15 minutes after instillation before re-inserting contact lenses.

## 4.5 Interaction with other medicinal products and other forms of interaction.

No interaction studies with other medicinal products have been performed.

*In vitro* studies have shown that olopatadine did not inhibit metabolic reactions which involve cytochrome P-450 isozymes 1A2, 2C8, 2C9, 2C19, 2D6, 2E1 and 3A4. These results indicate that olopatadine is unlikely to result in metabolic interactions with other concomitantly administered active substances.

## 4.6 Pregnancy and lactation

## Pregnancy

There are no or limited amount of data from the use of ophthalmic Olopatadine in pregnant women.

Studies in animals have shown reproductive toxicity following systemic administration.

Olopatadine is not recommended during pregnancy and in women of childbearing potential not using contraception.

## Lactation

Available data in animals have shown excretion of Olopatadine in milk following oral administration.

A risk to the newborn/infants cannot be excluded.

It should not be used during breast-feeding.



## **Fertility**

Studies have not been performed to evaluate the effect of topical ocular administration of Olopatadine on human fertility.

## 4.7 Effects on ability to drive and use machines

It has no or negligible influence on the ability to drive and use machines.

As with any eye drop, temporary blurred vision or other visual disturbances may affect the ability to drive or use machines. If blurred vision occurs at instillation, the patient must wait until the vision clears before driving or using machinery.

## 4.8 Undesirable effects:

The following adverse reactions have been reported during clinical studies and post-marketing data and are classified according to the following convention: very common ( $\geq 1/10$ ), common ( $\geq 1/100$  to <1/10), uncommon ( $\geq 1/1,000$  to <1/100), rare ( $\geq 1/10,000$  to <1/1000)very rare (<1/10,000) or not known (cannot be estimated from the available data). Within each frequency grouping, adverse reactions are presented in order of decreasing seriousness.

System Organ Classification	Frequency	Adverse Reactions
Infections and infestations	Uncommon	rhinitis
Immune system disorders	Not known	hypersensitivity, swelling face
Nervous system disorders	Common	headache, dysgeusia
	Uncommon	dizziness, hypoaesthesia
	Not known	somnolence
Eye disorders	Common	eye pain, eye irritation, dry eye, abnormal sensation in eyes
	Uncommon	corneal erosion, corneal epithelium



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		defect, corneal epithelium disorder,
		punctate keratitis, keratitis, corneal
		staining, eye discharge, photophobia,
		vision blurred, visual acuity reduced,
		blepharospasm, ocular discomfort,
		eye pruritus, conjunctival follicles,
		conjunctival disorder, foreign body
		sensation in eyes, lacrimation
		increased, erythema of eyelid, eyelid
		oedema, eyelid disorder, ocular
		hyperaemia
	Not known	corneal oedema, eye oedema, eye
		swelling, conjunctivitis, mydriasis,
		visual disturbance, eyelid margin
		crusting
Respiratory, thoracic, and	Common	nasal dryness
mediastinal disorders		
	Not known	dyspnoea, sinusitis
Gastrointestinal disorders	Not known	nausea, vomiting,
Skin and subcutaneous tissue	Uncommon	dermatitis contact, skin burning
disorders		sensation, dry skin
	Not known	dermatitis, erythema
General disorders and	Common	fatigue
administration site conditions	Not known	asthenia, malaise



Cases of corneal calcification have been reported very rarely in association with the use of

phosphate containing eye drops in some patients with significantly damaged corneas.

## 4.9 Overdose:

No data are available in humans regarding overdose by accidental or deliberate ingestion. Olopatadine has a low order of acute toxicity in animals. Accidental ingestion of the entire contents of a bottle of olopatadine would deliver a maximum systemic exposure of 5 mg olopatadine. This exposure would result in a final dose of 0.5 mg/kg in a 10 kg infant, assuming 100% absorption.

Prolongation of the QTc interval in dogs was observed only at exposures considered sufficiently in excess of the maximum human exposure indicating little relevance to clinical use. A 5 mg oral dose was administered twice-daily for 2.5 days to 102 young and elderly male and female healthy volunteers with no significant prolongation of QTc interval compared to placebo. The range of peak steady-state olopatadine plasma concentrations (35 to 127 ng/ml) seen in this study represents at least a 70-fold safety margin for topical olopatadine with respect to effects on cardiac repolarization.

In the case of overdose, appropriate monitoring and management of the patient should be implemented.

## 5. PHARMACOLOGICAL PROPERTIES

## **5.1 Pharmacodynamic properties:**

Olopatadine is a potent selective Antiallergics/antihistaminic agent that exerts its effects through multiple distinct mechanisms of action. It antagonises histamine (the primary mediator of allergic response in humans) and prevents histamine induced inflammatory cytokine production by human conjunctival epithelial cells. Data from in vitro studies suggest that it may act on human conjunctival mast cells to inhibit the release of pro-inflammatory mediators. In patients with patent nasolacrimal ducts, topical ocular administration of Olopatadine was suggested to

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reduce the nasal signs and symptoms that frequently accompany seasonal allergic conjunctivitis. It does not produce a clinically significant change in pupil diameter.

## 5.2 Pharmacokinetic properties:

## Absorption

Olopatadine is absorbed systemically, as are other topically administered medicinal products. However, systemic absorption of topically applied olopatadine is minimal with plasma concentrations ranging from below the assay quantitation limit (<0.5 ng/ml) up to 1.3 ng/ml. These concentrations are 50-to 200-fold lower than those following well tolerated oral doses.

## Elimination

From oral pharmacokinetic studies, the half-life of olopatadine in plasma was approximately eight to 12 hours, and elimination was predominantly through renal excretion. Approximately 60-70% of the dose was recovered in the urine as active substance. Two metabolites, the monodesmethyl and the N-oxide, were detected at low concentrations in the urine.

Since olopatadine is excreted in urine primarily as unchanged active substance, impairment of renal function alters the pharmacokinetics of olopatadine with peak plasma concentrations 2.3-fold greater in patients with severe renal impairment (mean creatinine clearance of 13.0 ml/min) compared to healthy adults. Following a 10 mg oral dose in patients undergoing haemodialysis (with no urinary output), plasma olopatadine concentrations were significantly lower on the haemodialysis day than on the non-haemodialysis day suggesting olopatadine can be removed by hemodialysis.

## 5.3 Preclinical safety data:

Non-clinical data reveal no special hazard for humans based on conventional studies of safety, pharmacology, repeated dose toxicity, genotoxicity, carcinogenic potential and toxicity to reproduction.



Studies in animals have shown reduced growth of nursing pups of dams receiving systemic doses of Olopatadine well in excess of the maximum level recommended for human ocular use. Olopatadine has been detected in the milk of nursing rats following oral administration.

## 6. PHARMACEUTICAL PARTICULARS

## **6.1** List of excipients

Sl.No	Ingredients
1	Olopatadine Hydrochloride
2	Benzalkonium Chloride Solution
3	Sodium chloride
4	Disodium phosphate anhydrous
5	Edetate disodium
6	Povidone K-30
7	Sodium hydroxide
8	Hydrochloric acid
9	Water for injection

## **6.2 Incompatibilities**

Not applicable

## 6.3 Shelf life

The Shelf life is 24 months from the date of manufacture Discard four weeks after first opening.

## **6.4 Special precautions for storage**

Store at 2-25°C. Protect from light



## **6.5** Nature and contents of container

2.5 ml in 5 ml 3-piece container in a single carton.

## 7. Marketing Authorization Holder

MICROLABS LIMITED #27, RACECOURSE ROAD, BANGLORE – 560001, INDIA

## 8. Marketing Authorization Number

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## 9. Date of first authorization/renewal of authorization

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## 10. Date of revision of text

Aug 2018