

I-GESICTM

1. Generic Name

Diclofenac Sodium

2. Qualitative and Quantitative composition

Each ml of I-GESIC Eye Drop contains:

Diclofenac sodium 0.1%

3. Dosage form and strength

Topical ophthalmic solution containing Diclofenac Sodium 0.1%.

4. Clinical particulars

4.1 Therapeutic indication

I-GESIC is indicated for:

- The treatment of post-operative inflammation in patients who have undergone cataract extraction and IOL implantation.
- Trabeculoplasty and photorefractive keratectomy.
- In ocular inflammatory conditions like iritis, iridocyclitis, chronic conjunctivitis and post-operatively. For the temporary relief of pain and photophobia in patients undergoing corneal refractive surgery.

4.2 Posology and method of administration

Control of post-operative inflammation	Apply 1 drop 4 times daily for up to 28 days.
Control of ocular pain associated with corneal epithelial defects after accidental non-penetrating trauma.	Apply 1 drop 4 times daily for up to 2 days.
Treatment of ocular pain and discomfort after radial keratotomy.	Pre-operatively one drop before surgery, post-operatively one drop immediately after surgery, and then one drop 4 times daily for up to 2 days.

4.3 Contraindication

Patients with known hypersensitivity to any of the ingredients.

Like other non-steroidal anti-inflammatory agents, I Gesic is also contraindicated in patients in whom attacks of asthma, urticaria or acute rhinitis are precipitated by acetylsalicylic acid or by other drugs with prostaglandin synthetase inhibiting activity. Intraocular use during surgical procedure is also contraindicated.

4.4 Special warnings and precautions for use

- I-GESIC, like other NSAIDs, should be used with caution in surgical patients with known bleeding tendencies or who are receiving other medications, which may prolong bleeding time.
- I-GESIC may slow or delay healing.
- Elevations in intra-ocular pressure may occur with I-GESIC following its use in cataract surgery.
- Caution should be exercised when topical NSAIDs such as diclofenac are used concomitantly with topical steroids

4.5 Drug interactions

Concomitant use of topical NSAIDs such as diclofenac and topical steroids in patients with significant pre-existing corneal inflammation may increase the risk of developing corneal complications, therefore caution should be used.

An interval of at least five minutes between the application of the different medicinal products must be allowed.

4.6 Use in special population

- Pediatric: Safety and effectiveness in paediatric patients have not been established.
- Geriatric: No overall differences in safety or effectiveness have been observed between elderly and younger adult patients.

- Liver impairment: Use with caution.
- Renal failure: Diclofenac pharmacokinetics has been investigated in subjects with renal insufficiency. No differences in the pharmacokinetics of diclofenac have been detected in studies of patients with renal impairment.
- Pregnancy and lactation: There are no data on the use of I Gesic or I Gesic Multidose 0.1% in pregnancy. Studies in animals with diclofenac have shown reproductive toxicity .

1st and 2nd Trimester: Animal studies have so far shown no risk to the foetus but no controlled studies in pregnant women are available.

3rd Trimester: I Gesic should not be used, due to a possible risk of premature closure of the ductus arteriosus and possible inhibition of contraction

Diclofenac is excreted in breast milk. However, at therapeutic doses of I Gesic no effects on the suckling child are anticipated. Use of ocular diclofenac is not recommended during breast feeding unless the expected benefits outweigh the possible risks

4.7 Effects on ability to drive and use machine

Patients should be cautioned against engaging in activities requiring complete mental alertness, and motor coordination such as operating machinery until their response to I Gesic is known.

4.8 Undesirable effects

Use of I-GESIC may be associated with transient burning and stinging sensation, keratitis and elevated intra-ocular pressure. Other adverse effects include Periorbital oedema, Eyelid oedema, Eye swelling, Periorbital swelling, Visual impairment, Orbital oedema, Eye pruritus, Ocular hyperaemia, Vision blurred, Eye pain, Lacrimation increased, Eye irritation, Swelling of eyelid, Diplopia. Rarely patients on I-GESIC may experience abdominal pain, chills, fever and headache.

4.9 Overdose

There is limited experience of overdose with I Gesic. Initiate general symptomatic and supportive measures in all cases of overdosages where necessary.

5. Pharmacological properties

5.1 Mechanism of action

The anti-inflammatory effects of diclofenac are believed to be due to inhibition of both leukocyte migration and the enzyme cyclooxygenase (COX-1 and COX-2), leading to the peripheral inhibition of prostaglandin synthesis. As prostaglandins sensitize pain receptors, inhibition of their synthesis is responsible for the analgesic effects of diclofenac. Antipyretic effects may be due to action on the hypothalamus, resulting in peripheral dilation, increased cutaneous blood flow, and subsequent heat dissipation.

5.2 Pharmacodynamic properties

Diclofenac reduces inflammation and by extension reduces nociceptive pain and combats fever. It also increases the risk of developing a gastrointestinal ulcer by inhibiting the production of protective mucus in the stomach.

5.3 Pharmacokinetic properties

Diclofenac is rapidly absorbed when given as an oral solution, sugar-coated tablets, rectal suppository, or by intramuscular injection. It is absorbed more slowly when given as enteric-coated tablets, especially when this dosage form is given with food. Although diclofenac given orally is almost completely absorbed, it is subject to first-pass metabolism so that about 50% of the drug reaches the systemic circulation in the unchanged form. Diclofenac is also absorbed percutaneously.

At therapeutic concentrations it is more than 99% bound to plasma proteins. Diclofenac penetrates synovial fluid where concentrations may persist even when plasma concentrations fall; small amounts are distributed into breast milk. The terminal plasma half-life is about 1 to 2 hours. Diclofenac is metabolised to 4'-hydroxydiclofenac, 5-hydroxydiclofenac, 3'-hydroxydiclofenac and 4',5-dihydroxydiclofenac. It is then excreted in the form of glucuronide and sulfate conjugates, mainly in the urine (about 60%) but also in the bile (about 35%); less than 1% is excreted as unchanged diclofenac.

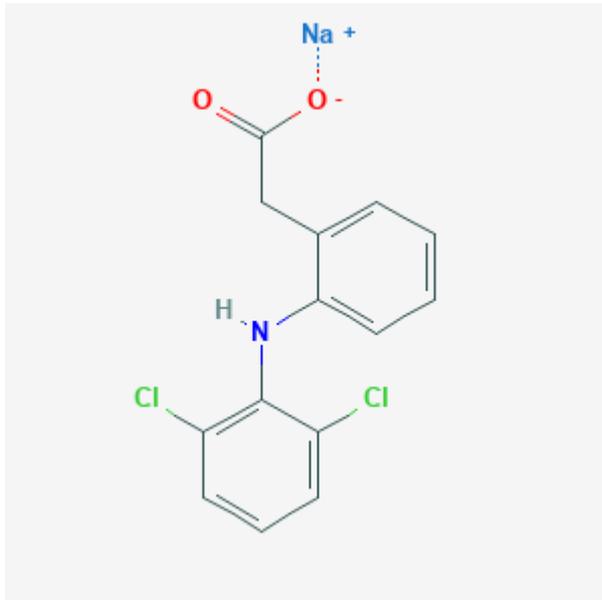
6. Nonclinical properties

6.1 Animal Toxicology or Pharmacology

Rabbits received 5 daily instillations of either a 0.1% or 0.05% diclofenac sodium ophthalmic solution in the conjunctival sac for 3 months. A third group received saline only. In each animal, the left eye was treated, allowing the right eye to act as a control. Clinical examinations revealed no systemic or local abnormalities. Detailed ophthalmologic observations and laboratory and pathological examinations of the ophthalmic structure confirmed that diclofenac sodium 0.1% solution is safe when administered topically to the rabbit eye for protracted periods.

7. Description

Diclofenac Sodium is the sodium salt form of diclofenac, a benzene acetic acid derivate and nonsteroidal anti-inflammatory drug (NSAID) with analgesic, antipyretic and anti-inflammatory activity. Its chemical name is sodium;2-[2-(2,6-dichloroanilino)phenyl]acetate. The empirical formula and molecular weight are $C_{14}H_{10}Cl_2NNaO_2$ and 318.1 g/mol.



8. Pharmaceutical particulars

8.1 Incompatibilities

There are no known incompatibilities.

8.2 Shelf-life

36 months.

8.3 Packaging Information

I-GESIC is available in a 5 ml lupolen vial.

8.4 Storage and handling instructions

Store in cool and dry place.

9. Patient Counselling Information

9.1 Adverse reactions

Refer part 4.8

9.2 Drug Interactions

Refer part 4.8

9.3 Dosage

Refer part 4.5

9.4 Storage

Refer part 8.4

9.5 Risk factors

Refer part 4.4

9.6 Self-monitoring information

NA

9.7 Information on when to contact a health care provider or seek emergency help

Patient is advised to be alert for the emergence or worsening of the adverse reactions and contact the prescribing physician.

9.8 Contraindications

Refer part 4.3

10. Manufactured by CENTAUR PHARMACEUTICALS PVT. LTD. and DCI Pharmaceuticals

11. Details of permission or license number with date

158(200)/MFG/DFDA/2001/3519 dated. 06.09.2001 for export.

158(145)/MFG/DFDA/92/98 dated. 03.04.1997 for domestic.

12. Date of revision: January 2022