

Drugs



Hydroxypropyl cellulose

IDENTIFICATION

Name Hydroxypropyl cellulose

Accession Number DB00840 (APRD01023)

Type Small Molecule

Groups Approved

Description Hydroxypropyl cellulose is an ether of cellulose where some of the hydroxyl groups of the cellulose have been hydroxypropylated forming -OCH₂CH(OH)CH₃ groups. Lacrisert is a formulation of hydroxypropyl cellulose that is used for artificial tears. It is used to treat syndromes characterized by insufficient tear production (keratoconjunctivitis sicca), recurrent corneal erosions, decreased corneal sensitivity, exposure and neuroparalytic keratitis, and as a lubricant for artificial eyes. As a food additive, hydroxypropyl cellulose is used as a thickener and as an emulsion stabilizer.

Synonyms

- Cellulose hydroxypropyl ether
- Cellulose, 2-hydroxypropyl ether
- Hiprolosa
- Hydroxypropyl cellulose
- Hydroxypropyl cellulose (type H)
- Hydroxypropylcellulose
- Hyprolose
- Hyprolosum
- Modified cellulose

External IDs E 463 / E-463 / Ins no.463 / INS-463

Prescription Products

Show entries

NAME	DOSAGE	STRENGTH	ROUTE	LABELLER	MARKETING START	MARKETING END	
Lacrisert	Insert	5 mg/1	Conjunctival	Merck Sharp & Dohme Limited	1981-06-01	2009-05-31	
Lacrisert	Pellet	5 mg/1	Ophthalmic	Aton Pharma, Inc.	1981-06-01	2016-09-21	
Lacrisert	Pellet	5 mg/1	Ophthalmic	Bauch & Lomb Incorporated	1981-06-01	Not applicable	

Showing 1 to 3 of 3 entries

≤ 1 ≥

Over the Counter Products

Show entries

NAME	DOSAGE	STRENGTH	ROUTE	LABELLER	MARKETING START	MARKETING END	
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NAME	DOSAGE	STRENGTH	ROUTE	LABELLER	MARKETING START	MARKETING END
				Llc		

Showing 1 to 1 of 1 entries

International/Other Brands A-Gel (Fresenius Kabi)

Categories

[Artificial Tears](#)

[Biomedical and Dental Materials](#)

[Biopolymers](#)

[Carbohydrates](#)

[Compounds used in a research, industrial, or household setting](#)

[Demulcent](#)

[Demulcent Activity](#)

[Glucans](#)

[Macromolecular Substances](#)

[Ophthalmics](#)

[Polymers](#)

[Polysaccharides](#)

UNII [RFW2ET671P](#)

CAS number 9004-64-2

Weight Not Available

Chemical Formula Not Available

InChI Key Not Available

InChI Not Available

IUPAC Name Not Available

SMILES Not Available

PHARMACOLOGY

Indication Used to relieve dryness and irritation caused by reduced tear flow that occurs in certain eye diseases (keratoconjunctivitis sicca), recurrent corneal erosions, decreased corneal sensitivity, exposure and neuroparalytic keratitis, and as a lubricant for artificial eyes.

Associated Conditions

- [Corneal Erosions](#)
- [Corneal Inflammation](#)
- [Dry Eye Syndrome \(DES\)](#)
- [Keratoconjunctivitis Sicca](#)

Pharmacodynamics Hydroxypropyl cellulose (cellulose, 2-hydroxypropyl ether) is a derivative of cellulose with both water solubility and organic solubility. Hydroxypropyl cellulose acts to stabilize and thicken the precorneal tear film and prolong the tear film breakup time which is usually accelerated in patients with dry eye states. Hydroxypropyl cellulose also acts to lubricate and protect the eye. Hydroxypropyl cellulose usually reduces the signs and symptoms resulting from moderate to severe dry eye syndromes, such as conjunctival hyperemia, corneal and conjunctival staining with rose bengal, exudation, itching, burning, foreign body sensation, smarting, photophobia, dryness and blurred or cloudy vision. Progressive visual deterioration which occurs in some patients may be retarded, halted, or sometimes reversed.

Mechanism of action Hydroxypropyl cellulose is a derivative of cellulose that is soluble in both water and organic solvents. It is particularly good at trapping water and producing a film that serves as a barrier to water loss. Hydroxypropyl cellulose possesses good surface activity but does not gel as it forms