



Ophthalmic Preparations of Interest to Optometrists

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Editor's Note:

This paper is essentially a tabulated listing of nearly 200 ophthalmic preparations. It is too lengthy to publish in one issue of the CJO, so it will be presented in parts. The subject is tabulated in the following sections:

- Tear Supplements and Substitutes, Comfort Solutions.
- Vasoconstrictors, Decongestants, Astringents and Antihistamines.
- Topical Antibiotic, or other Antibacterial Preparations.
- Mydriatics / Cycloplaegics or both.
- Ophthalmic Ointments.

- Enzymatic Cleaners, Proteases and Lipases.
- Thermal Disinfection and Rinsing of Soft Lenses, Storage Solutions.
- Chemical Cleaning and Disinfecting Solutions or Systems for Soft Lenses.
- Solutions Designed for Use With Hard Lenses.
- Solutions Designed for Use With Hard Gas-Permeable Lenses.
- Diagnostic Aids.
- Ocular Lubricants, Eyewashes, Irrigating Solutions, Cushioning Solutions or Ointments.
- Topical Anaesthetics.
- Hypertonic Solutions or Ointments.
- Drugs to Treat Glaucoma.

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Readers will also note that some preparations will appear under more than one of the above descriptive headings.

1. Tear Supplements and Substitutes, Comfort Solutions

Product (Manufacturer or Distributor)	Viscosity Agent	Vasoconstrictor	Preservative	Buffer	Purpose or Other Ingredients
Adapettes (Alcon)	povidone, hydroxyethylcellulose, polyoxyethylene glycol (Adsorbobase)		thimerosal 0.004%, disodium edetate 0.1%	phosphate	Lubricating and rewetting solution for use with all contact lenses. Used for mucin deficiency. Isotonic.
Adapt (Alcon)	povidone, hydroxyethylcellulose, polyoxyethylene glycol (Adsorbobase)		thimerosal 0.004%, disodium edetate 0.1%	phosphate	Cushioning solution for hard and hard gas permeable contact lenses; also used as an artificial tear for eyes with aqueous deficiency. Isotonic.
Adsorboteartear (Alcon)	povidone, hydroxyethylcellulose, polyoxyethylene glycol (Adsorbobase)		thimerosal 0.004%, disodium edetate 0.1%	phosphate	Artificial tear. Used for aqueous deficiency. Duration of action 90 min or more. pH about 7.4. Isotonic.
B-H Hard Lens Comfort Drops (Barnes-Hind)	hydroxyethylcellulose		benzalkonium chloride 0.005%, disodium edetate 0.02%	sodium phosphate monobasic and dibasic	Hard lens comfort solution. Nonionic surfactants. Isotonic. pH 8.0.
B-H Soft Lens Comfort Drops (Barnes-Hind)	hydroxyethylcellulose, polyethylene glycol		thimerosal 0.004%, disodium edetate 0.1%	sodium borate, boric acid, potassium phosphate	Rewetting, lubricating soft lenses. Nonionic surfactant. Isotonic. pH 8.0.
B & L Lens Lubricant (Bausch & Lomb)	povidone 1.67%, polyethylene glycol, (Adsorbobase)		thimerosal 0.004%, disodium edetate 0.1%	phosphate	Lubricant for hard and soft lenses. Comfort solution.

Product (Manufacturer or Distributor)	Viscosity Agent	Vasoconstrictor	Preservative	Buffer	Purpose or Other Ingredients
B.S.S., Balanced Salt Solution (Alcon)			none	sodium acetate, 0.39% sodium citrate 0.17%	Ocular irrigation. Sodium chloride 0.49%, potassium chloride 0.075%, magnesium chloride 0.03% and calcium chloride 0.048%. mOsm 270
Clerz 2 Lubricating and Rewetting Eye Drops (CooperVision)	hydroxyethylcellulose 0.4%		disodium edetate 0.1%, sorbic acid 0.1%,	boric acid, sodium borate 0.22%	Hard and soft contact lens rewetting, comfort, and conditioner solution. Poloxamer 407 1%, sodium chloride 0.1% and potassium chloride 0.3%. Isotonic.
EFA Steri-Opt (Accurate)					Ophthalmic solution. Sodium chloride 0.48%. Isotonic.
Eye-Stream (Alcon)			benzalkonium chloride 0.013%	sodium acetate 0.39%, sodium citrate 0.17%	Ocular irrigation. Sodium chloride 0.49%, potassium chloride 0.075%, magnesium chloride 0.03%, and calcium chloride 0.048%. Isotonic.
Hydrocare Lenswet (Allergan)	polyvinyl alcohol 3.0%, (Liquifilm)		thimerosal 0.002%, disodium edetate 0.01%	sodium phosphate	Rewetting, comfort and conditioner solution for soft, hard and gas permeable lenses.
Hydrosol (Trans-Canada Contact Lens)	polyvinyl alcohol 2%		thimerosal 0.0025%, disodium edetate 0.1%, chlorhexidine gluconate 0.0025%		Soft lens comfort drop.
Hypotears (CooperVision)	polyvinyl alcohol, polyethylene glycol, (Lipiden polymeric system)		benzalkonium chloride 0.01%, disodium edetate 0.03%		Ocular lubricant, artificial tears Not for use with soft lenses. Dextrose. Hypotonic. pH about 5.5. Osmolality about 220 mOsm/L.
Isopto Tears (Alcon)	hydroxypropyl methylcellulose 0.5% or 1%		benzalkonium chloride 0.01%	phosphate and citrate buffers	Artificial tears, lubricant. sodium chloride. Duration of action about 60 minutes. Isotonic.
Lacril Artificial Tear (Allergan)	hydroxypropyl methylcellulose 0.5%, gelatin A 0.01%, poly sorbate 80		chlorobutanol 0.5%	sodium acetate, sodium citrate, acetic acid, sodium borate	Ocular lubricant, artificial tear. Potassium chloride, sodium chloride, calcium chloride, magnesium chloride, and dextrose; pH 5.82.
Lacrisert (Merck, Sharp & Dohme)	hydroxypropyl cellulose		none		Acts as slow release artificial tear (SRAT). Ophthalmic insert. Weighs 5 mg and is 3.5 mm long, rod-shaped.
Liquifilm Forte (Allergan)	polyvinyl alcohol 3% (Liquifilm)		thimerosal 0.002%, disodium edetate	sodium phosphate	Ocular lubricant, artificial tear. Dextrose. Isotonic. pH 5.4.
Liquifilm Tears (Allergan)	polyvinyl alcohol 1.4% (Liquifilm)		chlorobutanol 0.5%	none	Ocular lubricant, artificial tear with duration of action about 60 min. Sodium chloride and purified water. Isotonic. pH 4.66 to 5.2.
Lyteers (Barnes-Hind)	hydroxyethylcellulose 0.2%		benzalkonium chloride 0.01%, disodium edetate 0.05%	phosphate	Artificial tears with a duration of about 45 min. Sodium chloride 0.65% and potassium chloride 0.15%. Hypertonic; pH about 7.4.
Murine Supplemental Tears (Abbott)	hydroxypropylmethylcellulose 0.01%		benzalkonium chloride 0.01%, disodium edetate 0.05%,		Eyewash, tear supplement. Isotonic. pH about 7.7.
Murocel (Herdt & Charton)	methylcellulose 4000 cps, 1%		methylparaben 0.023%, propylparaben 0.01%		Ocular lubricant. Purified water, and sodium chloride 0.34%.
Muro Tears (Herdt & Charton)	hydroxypropyl- methylcellulose 0.5%		benzalkonium chloride 0.01%, disodium edetate 0.03%	boric acid, sodium borate	Ocular lubricant. Contains sodium chloride, potassium chloride, and dextran 40.
Neo-Tears (Barnes-Hind)	hydroxyethylcellulose, polyvinyl alcohol, polyethylene glycol		thimerosal 0.004%, disodium edetate 0.02%	sodium phosphate monobasic and dibasic	Ocular lubricant, artificial tear. Prolongs BUT. Water soluble polymers, sodium chloride, potassium chloride and carbowax 0.65%. Isotonic. pH about 7.0.

Product (Manufacturer or Distributor)	Viscosity Agent	Vasoconstrictor	Preservative	Buffer	Purpose or Other Ingredients
Pre-Sert (Allergan)	polyvinyl alcohol 3%		benzalkonium chloride 0.004%, disodium edetate 0.02%		Wetting and cushioning solution for use with hard contact lenses.
Soft Mate PS Comfort Drops (Barnes-Hind)			potassium sorbate 0.13%, disodium edetate 0.1%	boric acid, sodium borate	Comfort drops for soft lenses, rewetting and lubrication. Nonionic surfactant. Hypotonic.
Tearisol (CooperVision)	hydroxypropyl- methylcellulose 0.5%		benzalkonium chloride 0.01%, disodium edetate 0.01%	boric acid	Artificial tears with a duration of action 40 min or more. Potassium chloride, sodium carbonate monohydrate and calcium chloride.
Tears Naturale (Alcon)	hydroxypropyl- methylcellulose 0.3%,		benzalkonium chloride 0.01%, disodium edetate 0.05%		Artificial tears with a duration of action 90 min or more. Dextran 70, 0.1%, Duasorb. Surface tension 30.4.
Tears Plus (Allergan)	polyvinyl alcohol 1.4%, (Liquifilm) povidone		chlorobutanol	sodium phosphate	Artificial tears. Sodium chloride. Sodium hydroxide or hydrochloric acid to adjust pH. Hypotonic. pH about 4.5.



LETTERS

Contact Lens Safety in the Workplace

Editor, C.J.O.

As a result of the recent concern generated by anecdotal and even fabricated reports of injuries attributed to contact lenses in the work place, the College and University Safety Council of Ontario (CUSCO) has established a data pool on contact lenses and occupational eye injuries. The object is to gather well documented case studies and other scientific information so that decisions regarding the advisability of wearing contact lenses in certain laboratory/industrial environments are based on reasoned evaluation of available data rather than infelicitous generalities.

Optometrists who have information concerning eye injuries, or eye protection, while wearing contact lenses are urged to send as complete as possible case reports to:

Mr. Ronald Angus, Safety Specialist,
College and University Safety Council of Ontario,
Safety Education Division,
Workers' Compensation Board,
80 Bloor Street West,
Toronto, Ontario.
M4W 3C3

This information will contribute to the overall understanding of the exact risk to benefit ratio of contact lens wear in the workplace. The possible hazards to certain patients if contact lens are not worn are well known to any eye practitioner. The Canadian Ophthalmological Society policy statement on contact lenses in the work environment states, "Contact lenses may be worn in any work environment if proper forward safety eye wear is utilized in conjunction with contact lenses. Exception, however, may be in chemical or fume environments where individual considerations should apply." This viewpoint is not held by many Safety Officers and Directors of Occupational Health and Safety.

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