



miray medikal

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ABOUT US

MIRAY MEDİKAL, founded in 2005 Bursa, is an innovative company that specializes in the field of Ophthalmology. We are the pioneers of the industry that invest in ophthalmology sector in Bursa, considering both international developments and domestic needs.

Our products are manufactured using the highest levels of care and precision at our manufacturing facility with an indoor area of 2500 m² which is equipped with the advanced technology machines and equipments. We offer the highest quality products and outstanding customer service with our authorized distributors throughout Turkey and the world.

Our Quality Management System is documented through certifications EN ISO 13485:2016 and 2195 CE that ensures that all products and processes meet and exceed prevailing standards.

Our experienced staff is aware of the importance of the human life. So we believe in continuous improvement without compromising on quality. We strive hard to make each and every modern technology and development within the easy reach of ophthalmic surgeons and eye care professionals and to provide them with the best quality and confidence.

Honest, principled and fast service concept of Miray Medikal proves that human health is at the core of our business values.

Thank you for your confidence and preference.

*Atakan DEDE
General Manager*

Ocusalt® Balanced Salt Solution (BSS) is a sterile irrigating solution for use during both intra-ocular and extra-ocular surgical procedures

Technical Data

OCUSALT®

<i>pH</i>	<i>7.2 - 7.6</i>
<i>Osmolality</i>	<i>285 - 315 mOsm/kg</i>
<i>Volume</i>	<i>20 mL - 500 mL</i>
<i>Packing</i>	<i>12x500 mL glass bottles including hangers</i> <i>20 mL plastic bottles</i>
<i>Composition (100 mL)</i>	
<i>Calcium chloride 2H₂O</i>	<i>0.048 g</i>
<i>Potassium chloride</i>	<i>0.075 g</i>
<i>Sodium chloride</i>	<i>0.640 g</i>
<i>Magnesium chloride 6H₂O</i>	<i>0.030 g</i>
<i>Sodium acetate 3H₂O</i>	<i>0.390 g</i>
<i>Trisodium citrate 2H₂O</i>	<i>0.170 g</i>
<i>Water for injection</i>	<i>q.s</i>



FEATURES

- *Physiologic solution*
- *Isotonic to ocular tissues*
- *Preservative free*
- *Great for all ophthalmic surgical procedures*
- *Steam Sterilized*
- *3-year shelf life*

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OPHTHALMIC VISCOSURGICAL DEVICES (OVDs)



FEATURES

- Sterile, non pyrogenic viscoelastic solution containing high-quality sodium hyaluronate derived from bio-fermentation
- Sodium hyaluronate viscoelastic solution is used to maintain anatomical space of the anterior segment with reduced trauma to the corneal endothelium during surgery
- Multiple concentrations to meet surgeons' demands
- Easy injection
- Great protection of endothelial cells
- Excellent maintenance of the anterior segment
- Outstanding optical clarity
- Easy removal
- Steam sterilized
- Blister pack for extra protection
- 3-year shelf life

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Technical Data

NEOCROWN® 1.4 %

Concentration	14 mg/ml (1.4%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	3.8 - 4.5 million daltons
Zero Shear Viscosity	320.000 - 500.000 mPa.s
Osmolality	270 - 400 mOsm/kg
pH	6.8 - 7.6
Cannula	27G
Volume	1 ml
Composition (1ml)	
Sodium hyaluronate	14 mg
Sodium chloride	8.5 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



Technical Data

MEGACROWN® 1.8%

Concentration	18 mg/ml (1.8%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	2.9 - 3.8 million daltons
Zero Shear Viscosity	450.000 - 750.000 mPa.s
Osmolality	270 - 400 mOsm/kg
pH	6.8 - 7.6
Cannula	27G
Volume	1 ml
Composition (1ml)	
Sodium hyaluronate	18 mg
Sodium chloride	8.5 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



Technical Data

OCULOCROWN® 2.0%

Concentration	20 mg/ml (2.0%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	1.8 - 2.5 million daltons
Zero Shear Viscosity	230.000 - 500.000 mPa.s
Osmolality	270 - 400 mOsm/kg
pH	6.8 - 7.6
Cannula	25G
Volume	1 ml

Composition (1ml)	
Sodium hyaluronate	20 mg
Sodium chloride	8.5 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



Technical Data

CrownVisc® 1.0%

Concentration	10 mg/ml (1.0%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	3.8 - 4.5 million daltons
Zero Shear Viscosity	200.000 - 400.000 mPa.s
Osmolality	270 - 400 mOsm/kg
Storage	2-25 °C
pH	6.8 - 7.6
Cannula	27G
Volume	1 mL - 1.5 mL

Composition (1ml)	
Sodium hyaluronate	10 mg
Sodium chloride	8.5 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



Technical Data

CrownVisc® 1.4%

Concentration	14 mg/ml (1.4%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	2.9 - 3.8 million daltons
Zero Shear Viscosity	300.000 - 470.000 mPa.s
Osmolality	270 - 400 mOsm/kg
Storage	2-25 °C
pH	6.8 - 7.6
Cannula	27G
Volume	1 mL - 1.5 mL

Composition (1ml)	
Sodium hyaluronate	14 mg
Sodium chloride	8.5 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



Technical Data

CrownVisc® 1.6%

Concentration	16 mg/ml (1.6%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	2.9 - 3.8 million daltons
Zero Shear Viscosity	350.000 - 550.000 mPa.s
Osmolality	270 - 400 mOsm/kg
Storage	2-25 °C
pH	6.8 - 7.6
Cannula	27G
Volume	1 mL - 1.5 mL

Composition (1ml)

Sodium hyaluronate	16 mg
Sodium chloride	8.5 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



Technical Data

CrownVisc® 1.8 %

Concentration	18 mg/ml (1.8%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	2.9 - 3.8 million daltons
Zero Shear Viscosity	450.000 - 750.000 mPa.s
Osmolality	270 - 400 mOsm/kg
Storage	2-25 °C
pH	6.8 - 7.6
Cannula	27G
Volume	1 mL - 1.5 mL

Composition (1ml)

Sodium hyaluronate	18 mg
Sodium chloride	8.5 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



Technical Data

CrownVisc®3.0%

Concentration	30 mg/ml (3.0%) of sodium hyaluronate
Origin	Biofermentation
Molecular Weight	1.8 - 2.5 million daltons
Zero Shear Viscosity	350.000 - 650.000 mPa.s
Osmolality	270 - 400 mOsm/kg
Storage	2-25 °C
pH	6.8 - 7.6
Cannula	25G
Volume	1 mL - 1.5 mL
Composition (1ml)	
Sodium hyaluronate	30 mg
Sodium chloride	8.5 mg
Disodium hydrogen phosphate	0.563 mg
Sodium dihydrogen phosphate	0.045 mg
Water for injection	q.s



CrownGel® Sterile Viscoelastic Solution Containing Pharma grade HPMC
CrownGel® is used to maintain anatomical space and avoid collapsing of the chamber in anterior segment surgical procedures such as cataract extraction and IOL implantation.

<i>Technical Data</i>	<i>CrownGel®2.0%</i>	<i>CrownGel®2.4%</i>
<i>Hydroxypropyl Methylcellulose</i>	<i>20 mg/ml (2.0%) of HPMC</i>	<i>24 mg/ml (2.4%) of HPMC</i>
<i>Zero Shear Viscosity</i>	<i>3.000 - 5.000 mPa.s</i>	<i>6.000 - 8.000 mPa.s</i>
<i>Osmolality</i>	<i>270 - 400 mOsm/kg</i>	<i>270 - 400 mOsm/kg</i>
<i>pH</i>	<i>6.8 - 7.6</i>	<i>6.8 - 7.6</i>
<i>Volume</i>	<i>2 mL</i>	<i>2 mL</i>
<i>Packing</i>	<i>10 per box</i>	<i>10 per box</i>
<i>Composition (1 mL)</i>		
<i>Concentration</i>	<i>20 mg</i>	<i>24 mg</i>
<i>Sodium chloride</i>	<i>6.40 mg</i>	<i>6.40 mg</i>
<i>Potassium chloride</i>	<i>0.75 mg</i>	<i>0.75 mg</i>
<i>Calcium chloride 2H₂O</i>	<i>0.48 mg</i>	<i>0.48 mg</i>
<i>Magnesium chloride 6H₂O</i>	<i>0.30 mg</i>	<i>0.30 mg</i>
<i>Sodium acetate 3H₂O</i>	<i>3.90 mg</i>	<i>3.90 mg</i>
<i>Trisodium citrate 2H₂O</i>	<i>1.70 mg</i>	<i>1.70 mg</i>
<i>Water for injection</i>	<i>q.s</i>	<i>q.s</i>



Ocublu®-Try Trypan Blue is a sterile intra-ocular solution which stains the anterior lens capsule to visualize capsulorhexis during cataract surgery.

OCUBLU®TRY TRYPAN BLUE

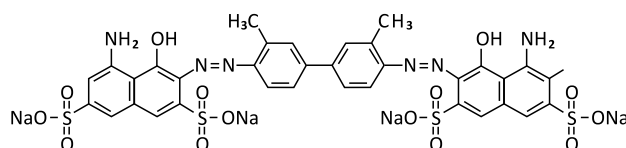


Technical Data

Formula	$C_{34}H_{24}N_6Na_4O_{14}S_4$
Concentration	0,02%, 0,04%, 0,06%
Storage	10 - 30 C°
Packing	1 ml in vial / 10 per box 1 ml in syringe / 10 per box

FEATURES

	■ Rapid and easy application
	■ Improved visualization of the anterior lens capsule
	■ Excellent distinction of the capsulorhexis margin
	■ Reduced risk of incomplete capsulorhexis
Ocublu-Try Trypan Blue 0,02% - 0,2 mg 1 ml	
Ocublu-Try Trypan Blue 0,04% - 0,4 mg 1 ml	■ Reduced surgical time
Ocublu-Try Trypan Blue 0,06% - 0,6 mg 1 ml	■ Steam sterilized



Technical Data

OCUBLU® ILM Blue

OCUBLU® ILM/ERM Blue

pH

6.0 - 8.0

6.0 - 8.0

Osmolality

270 - 400 mOsm/kg

270 - 400 mOsm/kg

Storage

10-30 °C

10-30 °C

Packing

1 ml in vial / 5 per box

1 ml in vial / 5 per box

1 ml in syringe / 5 per box

1 ml in syringe / 5 per box



FEATURES

- Good Staining and better contrast
- Fast sinking, maximized contact area with the tissue
- Biocompatible
- Steam Sterilized

Ocublu® ILM Blue is used to selectively stain and visualize Internal Limiting Membrane (ILM), facilitating removal of the tissue and reducing the risk of retinal damage.

Ocublu® ILM/ERM Blue has selective affinity for both Epiretinal Membrane (ERM) and Internal Limiting Membrane (ILM) which allows surgeons to clearly differentiate ILM, ERM and retina.

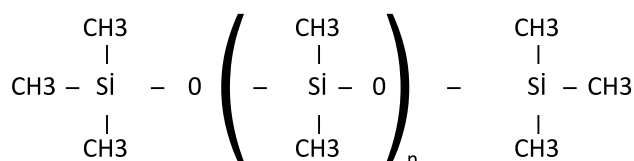
Ocusil® Silicone Oil is indicated for prolonged tamponade after surgical treatment for severe retinal detachment.

OCUSIL® SILICONE OIL



Technical Data

Viscosity	1000 cSt / 5000 cSt
Refractive index	1,401 - 1,405 at 25 °C
Specific Gravity	0,97 g/cm ³ at 25 °C
Packing	10 ml in vial 15 ml in vial 10 ml in syringe



FEATURES

- Excellent chemical purity
- Reliable long term tolerance
- High emulsification resistance
- Reduced incidence of complications
- Steam Sterilized

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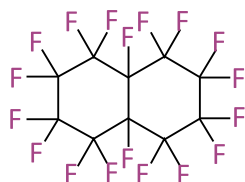
Ocudeka® Decaline
100% Fluorinated Perfluorocarbon Liquid For Retinal Surgery

OCUDEKA® DECALINE



Technical Data

Formula	$C_{10}F_{18}$
Density	$1,908 \text{ g/cm}^3 \text{ at } 20^\circ \text{C}$
Content	100 % fluorinated perfluorocarbon
Boiling point	142°C
Packing	5 ml in vial 7 ml in vial



FEATURES

- Biocompatible
- Chemically and physiologically inert
- Efficient retinal unfolding and stabilization
- High specific density
- Steam Sterilized



FEATURES HPMCGEL® 2.0%

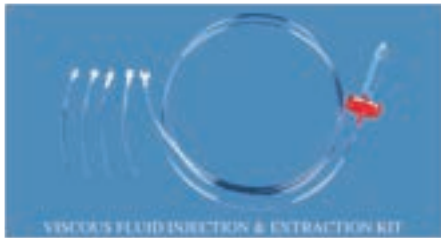
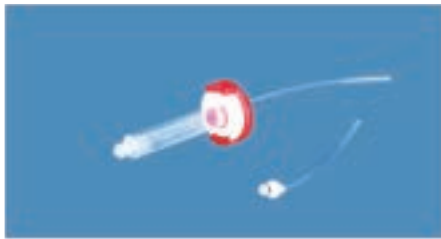
- *Highly viscous HPMC solution*
- *For use as a contact fluid during gonioscopy*
- *Forms a protective layer onto the eye surface during fundus examination with a lens*
- *Optimum protection of eye surface*
- *For external use only*
- *Hold the bottle upside down with a special bottle holder provided to prevent bubbling problem in the solution.*



FEATURES OCUSIL® PROSTHETIC EYE CARE SOLUTION

- *Medical fluid Silicone Oil*
- *For use as a lubricant for artificial eyes*
- *Reduced drainage and friction between the eyelids and the prosthetic surface*
- *Relieves irritation and discomfort*
- *Makes the artificial eye looking more natural and shiny*

OCUSIL® VISCIOUS FLUID INJECTION & EXTRACTION KIT

	VFI/VFE Viscous Fluid Injection & Extraction Kit Connector Type	Manufacturer	Vitrectomy System
	Compatible connector with Dorc, Alcon (VFI-1)	DORC ALCON	Eva Accurus Constellation
	Compatible connector with Oertli (VFI-2)	OERTLI	Orbit Faros 0S3 0S4
	Compatible connector with Bausch&Lomb (VFI-3)	BAUSCH&LOMB	Millenium Stellaris

FEATURES

- *Compatible with most vitrectomy machines and Silicone oil syringes on the market.*
- *Silicone oil injection can be performed in 23G or 25G thanks to the VFI cannulas supplied in the kit.*
- *A ready-to-use empty syringe is provided for silicone oil removal, together with the extraction cannula*
- *Maximal pressure of 5 bars*
- *Sterile*
- *Box of 5 kits*
- *Single use*

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Technical Data

CROWNPLEX® CLASSIC 20 mg

CROWNPLEX® CLASSIC PLUS 32 mg

Sodium hyaluronate	1.0%	1.6%
Molecular Weight	3.8 - 4.5 million daltons	2.9 - 3.8 million daltons
Zero Shear Viscosity	200.000 - 400.000 mPa.s	350.000 - 550.000 mPa.s
Osmolality	270 - 400 mOsm/kg	270 - 400 mOsm/kg
Storage	2-25 °C	2-25 °C
pH	6.8 - 7.6	6.8 - 7.6
Origin	Biofermentation	Biofermentation
Volume	2.0 ml	2.0 ml
Composition (2 ml)		
Sodium hyaluronate	20 mg	32 mg
Sodium chloride	17 mg	17 mg
Disodium hydrogen phosphate	1.126 mg	1.126 mg
Sodium dihydrogen phosphate	0.090 mg	0.090 mg
Water for injection	q.s	q.s



STERILE SODIUM HYALURONATE SOLUTION FOR INTRA-ARTICULAR INJECTION (ORTHOPEDICS)

CrownFlex® is a sterile, non pyrogenic viscoelastic solution containing high-quality sodium hyaluronate derived from bio-fermentation.

CrownFlex® is indicated on the patients with degenerative joint disease (osteoarthritis) for reducing mechanical stress on the joint and increasing the joint mobility due to its reliable lubrication and shock absorbing properties.

Technical Data

CROWN FLEX® ULTRA 40 mg

CROWN FLEX® ULTRA PLUS 60 mg

Sodium hyaluronate	2.0%	3.0%
Molecular Weight	1.8 - 2.5 million daltons	1.8 - 2.5 million daltons
Zero Shear Viscosity	230.000 - 500.000 mPa.s	350.000 - 650.000 mPa.s
Osmolality	270 - 400 mOsm/kg	270 - 400 mOsm/kg
Storage	2-25 °C	2-25 °C
pH	6.8 - 7.6	6.8 - 7.6
Origin	Biofermentation	Biofermentation
Volume	2.0 ml	2.0 ml
Composition (2 ml)		
Sodium hyaluronate	40 mg	60 mg
Sodium chloride	17 mg	17 mg
Disodium hydrogen phosphate	1.126 mg	1.126 mg
Sodium dihydrogen phosphate	0.090 mg	0.090 mg
Water for injection	q.s	q.s



FEATURES

- Easy controlled injection
- Reliable lubrication and shock absorbing properties
- Reduced pain and improved joint mobility following the intra-articular injection
- Highly effective to improve the quality of the joint's lubrication
- Steam sterilized



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