

HPF

MKT-256 rev. 4

REFERENCES

Ocular tolerance and efficacy of short-term tamponade with double filling of polydimethylsiloxane and perfluoro-n-octane

Zenoni S., Romano M. R., Palmieri S., Comi N., Fiorentini E., Fontana P. - *Clinical Ophthalmology* 2011; 5: 443-449

Pars plana vitrectomy alone for the management of pseudophakic rhegmatogenous retinal detachment with only inferior breaks

Martinez-Castillo V. J., Garcia-Arumi J., Boixadera A. *Ophthalmology* 2016; 123: 1563-1569

H content is not predictive of perfluorocarbon ocular endo-tamponades cytotoxicity in vitro

Ruzza P., Gatto C., Ragazzi E., Romano R. M., Honisch C., D'Amato Tóthová J. - *ACS Omega Journal*, 2019

Evaluation of cytotoxicity of perfluorocarbons for intraocular use by cytotoxicity test in vitro in cell lines

Romano R. M., Ferrara M., Gatto C., Ferrari B., Giurgola L., D'Amato Tóthová J. - *Translational Vision Science & Technology*, 2019

ALCHIMIA

YOUR IDEAS, OUR SOLUTIONS

AL.CHI.MI.A. S.R.L.
VIALE AUSTRIA, 14
35020 - PONTE SAN NICOLÒ (PD) - ITALY

+39 049 89.62.074

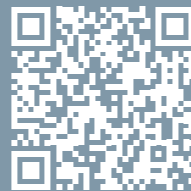
+39 049 89.62.071

www.alchimiasrl.com
info@alchimiasrl.com

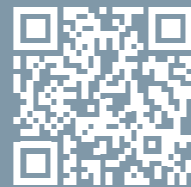
ophthalmic surgery



LINKEDIN



FACEBOOK



YOUTUBE



AlchiAPP IS BORN
THE NEW APP FOR THE
**OPHTHALMIC
PROFESSIONALS**



HPF8 & HPF10

THE MOST CONTROLLED HIGH PURITY
PERFLUOROCARBONS



PURE



SAFE



BIOCOMPATIBLE

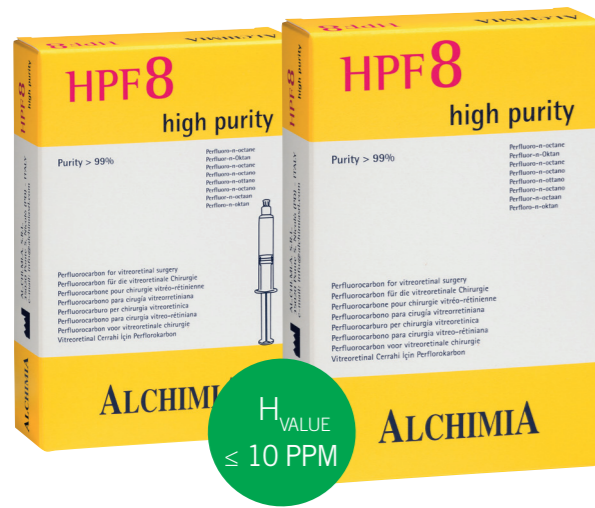


CHEMICALLY CONTROLLED



CYTOTOXICITY TESTED





HPF8 AND **HPF10** ARE HIGHLY SAFE MEDICAL DEVICES CONTROLLED BY MEANS OF SOPHISTICATED CHEMICAL METHODS AND WHOSE SAFETY IS CONFIRMED BY CYTOTOXICITY TEST ON TWO CELL LINES.

AFTER **HPF8**, LONG-TERM TAMPONADE WITH OPHTHALMIC GAS IS INDICATED. AFTER **HPF10**, LONG-TERM TAMPONADE WITH SILICONE OIL IS INDICATED.

ADVANTAGES	SPECIFICATIONS	CHARACTERISTICS	SPECIFICATIONS	ADVANTAGES
	1.75 - 1.77 g/cm ³	DENSITY	1.91 - 1.93 g/cm ³	Few bubbles
Stable in laser and cryo-applications	101 - 105°C	BOILING POINT	140 - 142°C	Stable in laser and cryo-applications
Better visualization	1.28 - 1.26	REFRACTIVE INDEX	1.32 - 1.30	
Easy to remove	From 1.8 to 1.1 mPas	VISCOSITY	From 6.2 to 4.4 mPas	
Quick evaporation	56 mmHg	VAPOUR PRESSURE	13 mmHg	
PERFLUORO-N-OCTANE IS EASIER TO USE WITH GAS PROCEDURES		PERFLUORODECALIN IS EFFICIENT ON DRASTIC CASES WITH FURTHER SILICONE OIL TAMPONADE		

high purity **HPF8**

high purity **HPF10**

INGREDIENT	100% FLUORINATED PERFLUORO-N-OCTANE	100% FLUORINATED PERFLUORODECALIN
BACTERIAL ENDOTOXINS	< 0.2 EU/ml	
SHELF-LIFE	36 MONTHS	
REFERENCE	HPF 001-00 / HPF 002-00 HPF 019-00 / HPF 020-00	HPF 003-00 / HPF 004-00 HPF 021-00 / HPF 022-00
CONTENTS	5 OR 7 ml IN VIAL OR SYRINGE	

SAFETY INFORMATION

	ALCHIMIA		DORC		PHARMPUR	
COMMERCIAL NAME	HPF8	HPF10	EFTIAR OCTANE	EFTIAR DECALIN	OPHTAFUTUR OCTA	OPHTAFUTUR DECA
ACTIVE INGREDIENT	Perfluoro-n-octane	Perfluoro-decalin	Perfluoro-n-octane	Perfluoro-decalin	Perfluoro-n-octane	Perfluoro-decalin
DECLARED PURITY	≥ 99%	≥ 95%	N/A	N/A	≥ 95%	≥ 95%
H _{VALUE}	≤ 10 ppm		≤ 10 ppm		≤ 10 ppm	
CYTOTOXICITY (BALB 3T3)* cell mortality %	1.7	4.8	4.8	6	N/A	6
CYTOTOXICITY (ARPE-19)* cell mortality %	7.7	12.6	12.8	15.9	N/A	21
PFOA (perfluorooctanoic acid)	not present		N/A		N/A	

THE SAFETY OF OUR PERFLUOROCARBONS IS GUARANTEED BY THE ACCURATE CHECKS CARRIED OUT DURING ALL THE MANUFACTURING STEPS AND CONFIRMED BY GAS CHROMATOGRAPHIC ANALYSES (PURITY), NUCLEAR MAGNETIC RESONANCE (H_{VALUE}) AND CYTOTOXICITY TEST (DIRECT CONTACT ON BALB 3T3 AND ARPE-19 CELLS).

N/A = NOT AVAILABLE

*CYTOTOXICITY TEST BY DIRECT CONTACT ACCORDING TO ISO 10993-5:2009



Let's talk about **H_{value}**

PFOA (perfluorooctanoic acid), ONE OF THE CONTAMINANTS FOUND IN THE "ALAOCTA" PERFLUORO-N-OCTANE BY ALAMEDICS, WHICH CAUSED LOSS OF VISION IN OVER 100 SPANISH PATIENTS, WAS CYTOTOXIC IN THE CYTOTOXICITY TEST BY DIRECT CONTACT ON ARPE-19 CELLS AT A CONCENTRATION OF 30 PPM CORRESPONDING TO AN H_{VALUE} LOWER THAN 10 PPM.

THEREFORE, THE H_{VALUE} IS NOT A PARAMETER EVIDENCING THE PRODUCT SAFETY.