

Liquivent® Perfluorocarbon



OriGen Biomedical
Liquivent®, 500ml
PFB-500 REF
Perflubron, USP

Liquivent® Solution, Radiopaque

OriGen Biomedical, Inc.
7000 Burnison Rd, Bldg D - Austin, TX 78744
OriGen Biomedical GmbH

OriGen Biomedical
Liquivent®, 250ml
PFB-250 REF
Perflubron, USP

Liquivent® Solution, Radiopaque

OriGen Biomedical, Inc.
7000 Burnison Rd, Bldg D - Austin, TX 78744
OriGen Biomedical GmbH

OriGen Biomedical
Liquivent®, 125ml
PFB-125 REF
Perflubron, USP

Liquivent® Solution, Radiopaque

OriGen Biomedical, Inc.
7000 Burnison Rd, Bldg D - Austin, TX 78744
OriGen Biomedical GmbH

Liquivent® Perfluorocarbon

Liquivent® is a clear perfluorocarbon (PFC) solution for lung lavage - intended to aid in the removal of foreign material and tenacious bronchial secretions.

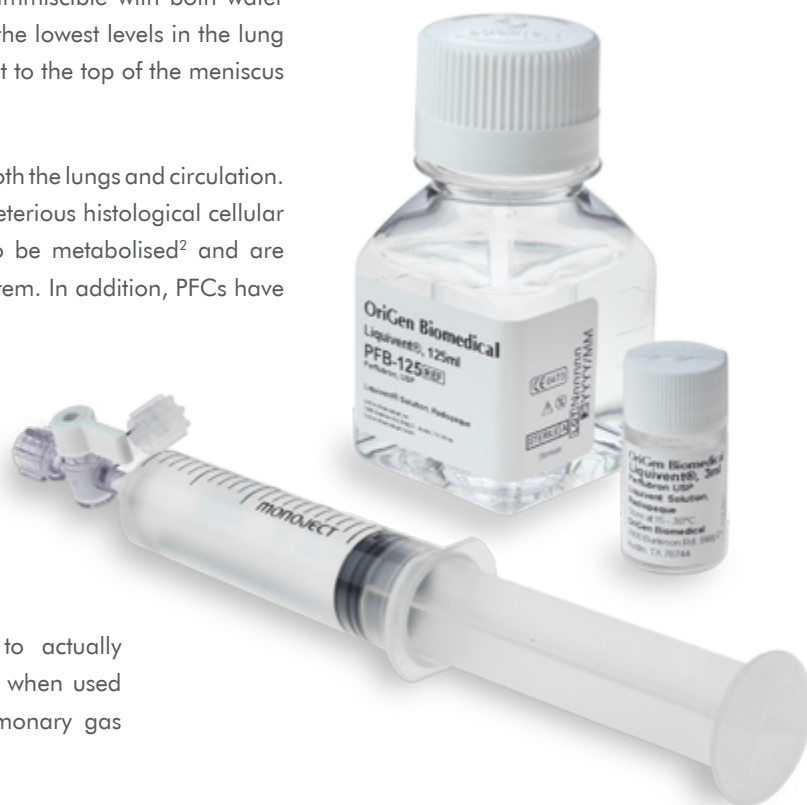
Chalice Medical Ltd. are the UK distributor of the Liquivent® supplied by OriGen Biomedical and is available in both a radiopaque or radiolucent solution, in a variety of set volumes to accommodate an extensive patient range.

The water-clear, very dense, low-viscosity PFC liquid is immiscible with both water and lipids. Due to its high density, it easily penetrates to the lowest levels in the lung to displace most solids* and liquids, causing those to float to the top of the meniscus where they are easily suctioned out.

Perfluorocarbons (PFCs) have been extensively studied in both the lungs and circulation. PFCs are bio inert, minimally absorbed, and have no deleterious histological cellular or biochemical effects¹. PFC molecules are too large to be metabolised² and are therefore non-reactive in the respiratory or circulatory system. In addition, PFCs have very high vapor pressures³ and evaporate quickly.

Clinical studies have shown that PFC's are eliminated from the lungs primarily by evaporation, with radiographic clearance of most of the PFCs by 48 hours¹. In addition, PFC use in the lungs enhances surfactant phospholipid production⁴.

Instillation of Perflubron into the lungs was found to actually diminish oxidative damage to injury prone tissues⁵, and when used with exogenous surfactant, PFC actually improved pulmonary gas exchange after meconium aspiration⁶.



Radiopaque Perflubron

Product Code	Description
PFB - 20	20ml Syringe
PFB - 50	50ml Syringe
PFB - 125	125ml screw top bottle
PFB - 250	250ml screw top bottle
PFB - 500	500ml screw top bottle
PFB - 1000	1L screw top bottle

Radiolucent Perfluorodecalin

Product Code	Description
PFD - 20	20ml Syringe
PFD - 50	50ml Syringe
PFD - 125	125ml screw top bottle
PFD - 250	250ml screw top bottle
PFD - 500	500ml screw top bottle
PFD - 1000	1L screw top bottle

*Solids such as food, smoke, charcoal, mucus and dust.

1) Reickert C, Pranikoff T, Overbeck M, Kazerooni E, Massey K, Bartlett R, Hirschl R. "The Pulmonary And Systemic Distribution And Elimination Of Perflubron From Adult Patients Treated With Partial Liquid Ventilation" Chest. 2001 Feb; 119(2):515-522

2) PFC Molecular weights > 480

3) Vapor pressure > 5.9 mbar @ 20 C

4) Steinhorn DM, Leach CL, Fuhrman BP, Holm BA. "Partial Liquid Ventilation Enhances Surfactant Phospholipid Production." Critical Care Med. 1996 Jul; 24(7):1252-6.

5) Rotta AT, Gunnarsson B, Fuhrman BP, Wiriyawan B, Hernan LJ, Steinhorn DM. "Perfluorooctyl bromide (perflubron) attenuates oxidative injury to biological and nonbiological systems." Pediatr Crit Care Med. 2003 Apr; 4(2):233-8.

6) Schlösser R, L, Veldman A, Fischer D, Funk B, Brand J, von Loewenich V. "Comparison of Effects of Perflubron and Surfactant Lung Lavage on Pulmonary Gas Exchange in a Piglet Model of Meconium Aspiration." Biol Neonate. 2002 Feb; 81:126-131

(Information provided by OriGen Biomedical).