

# PERFLUORODECALINE (PFD)



**Manufacturer:**  
"HaloPolymer Kirovo-Chepetsk", LLC  
QMS for production is certified: ISO 9001

<b>CHEMICAL NAME:</b>	Octadecafluorodecahydronaphtalene (mixture of cis- and trans- isomers)
<b>TRADE NAME:</b>	Perfluorodecaline
<b>SYNONYMS:</b>	Perfluorobicyclo [4.4.0]decane, perfluorodecahydronaphtalene (mixture of cis- and trans-isomers), Perflunafene
<b>CHEMICAL FORMULA:</b>	$C_{10}F_{18}$
<b>CAS N°:</b>	306-94-5

PFD is a colorless, transparent liquid without smell. It is a nontoxic, non-flammable, nonexplosive, thermo-stable to a temperature of 400°C substance.



## PHYSICAL-CHEMICAL PROPERTIES

PARAMETERS	UNITS	VALUE
Mass fraction of PFD, the total of cis- and trans- isomers, min	%	96-99,99
Mass fraction of the impurities with chromatographic retention characteristics less than trans-perfluorodecaline in total, max	%	7
Mass fraction of the impurities with chromatographic retention characteristics more than cis-perfluorodecaline	-	no
Slivered fluoride-ions, max	mg/dm <sup>3</sup>	5
Boiling point, in the range of	°C	142 – 143,8
Melting point, in the range of	°C	(-10) – (-6,6)
Density at the temperature of 20°C	g/ml	1,908 – 1,945
Molecular weight	-	462



## Main application:

PFD is used as an inert supporter in pharmaceutical reactions and analyses, as a gas-carrying component, as a blood substitute, as medium for growth of microorganisms, as perfusion medium for preserving the transplanted organs, as one of the determinative components in the liposomal creams including anti-ambustial, regenerative, antiphlogistic, intimate creams, as liquid for burns treatment.

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## **Package:**

PFD is filled in clean, dry aluminium cans, metal flasks, polyethylene canisters, polyethylene jars or in other hermetical unbreakable containers with a capacity to 10 dm<sup>3</sup>. It is allowed to fill PFD in the hermetical container prepared by the consumer.



## **Transportation and storage:**

PFD is transported by any kind of the covered transport. Hermetic containers with PFD must be stored in clean, dry rooms beyond of no less than 1 m from the heating systems at the temperature from –5 to +30°C. Guaranteed storage time is 5 years from the date of production.