

Technical Information

Opteon™ SF79* specialty fluid features an excellent combination of environmental, safety, health, and performance profiles that meet the high solvency needs of the industrial cleaning market. As a result, it's an ideal candidate for replacing solvents like n-propyl bromide (nPB), perchloroethylene (Perc), water (H₂O), and trichloroethylene (TCE) in industrial cleaning applications.

Physical Properties

Property	Units	Opteon™SF79	nPB	TCE	Perc	H ₂ O
Boiling Point	°C (°F)	47 (117)	71 (160)	87 (188)	121 (250)	100 (212)
Freezing Point	°C (°F)	-50 (-58)	-108 (-162)	-73 (-99)	-2 (28)	0 (32)
KB Value		103	125	129	90	6.5
Wetting Index		154	108	86	57	16
Molecular Volume	cc/g-mol	77.9	92.3	89.8	102.3	18
Ozone Depletion Potential		0	0.26	0.005	0.005	0
Global Warming Potential		<15	N.D.	140	N.D.	0
Exposure Limits	ppm	201	10	10	25	N/A
Liquid Density	g/cm ³	1.29	1.35	1.46	1.62	1.0
Viscosity	сР	0.4	0.5	0.6	0.8	0.89
Flash Point	°C (°F)	None	24 (75)	32 (90)	45 (113)	N/A
Evaporation Rate (nBuAc = 1)		8	4.5	6.4	2.6	0.3
Hazardous Air Pollutants (HAP)		No	No	Yes	Yes	No

N.D. refers to no reference data available.

N/A = Not applicable.

Product performance benefits driven by designed solvent properties:

- The high solvency power (KB value = 103) of Opteon™ SF79 supports superior cleaning performance within its class.
- The high relative evaporation rate of Opteon™ SF79 delivers fast drying cycles and immediate use of cleaned parts for further processing.
- The optimal boiling point of Opteon[™] SF79 translates to greater work throughput and significant reduction in cleaning equipment energy consumption.
- Opteon™ SF79 supports lower cost of ownership, because of its low boiling point and ability to recycle the used solvent, which eliminates the equipment downtime

- associated with solvent change-outs. The low liquid density of Opteon™ SF79 also guarantees more solvent volume for the same fill weight.
- Freezing point supports use in cold cleaning applications at extremely low temperatures.
- Unmatched high wetting index coupled with superior molecular volume provides excellent performance in a variety of cleaning applications.
- High exposure limits allow flexibility with cleaning process, low cost equipment selection, and worker safety.
- Opteon™ SF79 is considered safe, as it is nonflammable and, therefore, not classified as an HAP.





^{*}Formerly Opteon™ Sion

