



CLEARCO DPF-7050 Diffusion Pump Fluid

Pentaphenyltrimethyltrisiloxane (CAS#3390-61-2) Ultimate Vacuum, torr 10-9 to 10-10 (untrapped) 10-11 (trapped)



Clearco DPF-7050 is formulated for use in High Vacuum Diffusion Pumps.

SPECIFICATIONS

Chemical Name	Pentaphenyltrimethyl-trisiloxane
CAS #	3390-61-2 > 95%
Appearance	Clear Liquid
Flash Point	245°C
Availability	1kg, 10kg. containers
Minimum Order	1 kg.

Clearco DPF-7050 is a high content Pentaphenyltrimethyltrisiloxane (CAS# 3390-61-2) that is formulated for ultrahigh vacuum applications in the range of 10-9 to 10-10 torr (untrapped) and 10-11 torr (trapped). The vapor pressure and back streaming rates are so low that use of traps or refrigeration is unnecessary for some ultrahigh and ultra-clean vacuum applications

DPF-7050 has the highest phenyl content of all diffusion pump fluids and the best resistance to radiation. It is designed for fast pumping of large volumes of gas or vapor in production operations.

FEATURES

Shorter conditioning runs: single component silicone fluids reach potential in far less time that that required for multi-component organic fluids.

Faster pumping: diffusion pumps using silicone fluids can operate against 20 to 300 percent higher fore-pressures than those using organic fluids. For higher gas through-put at the high-pressure end of the pump's operating range, heater input can be increased 20 to 30 percent.

Minimal back streaming: the vapor pressure of single-component silicone fluids is so low that the use of traps – or refrigeration of existing traps – is unnecessary for many applications.

Longer service life: Silicones are thermally and chemically stable – they allow for exceptionally long runs without deterioration or contamination.

Faster Cycling: Reduces downtime, less frequent fluid replacement. The recovery rate of silicone fluids after exposure to air at operating temperatures is may times faster than that of organic fluids. Time is saved due to the oxidation and hydrolysis resistance of the DPF-7050 without cooling the pump.

Cleaner Systems: less maintenance is required. Low vapor pressure of silicone fluids at baffle temperatures results in low migration rates. Silicone fluids exhibit virtually no breakdown or decomposition under normal operational conditions.

Typical Product Data For Clearco DPF-7050 Diffusion Pump Fluid

Viscosity @ 25°C	Vapor Pressure	Vapor Density (air = 1)	% Volatile	Specific Gravity	Molecular Weight	Surface Tension	Pour Point	Flashpoint °C	Refractive Index
170cSt	<0.0001 mm	>5	<1%	1.09	547	36.5	-35°C	245°C	1.588

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