Technical Data

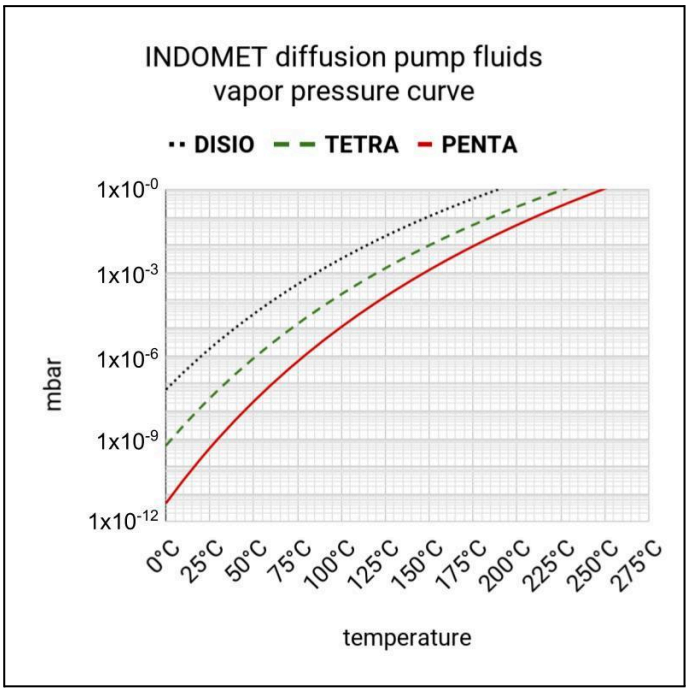
INDOMET TETRA Silicone Oil for Diffusion Pumps

Product Name:	**INDOMET TETRA** Silicone Oil for Diffusion Pumps
function:	High Vacuum Diffusion Pump Fluid
material:	Silicone Oil / Methyl-Phenyl-Siloxane
customs material code (TARIC):	3910000090
MOL:	484
form:	liquid
color:	colorless / clear
odor:	odorless
surface tension:	37
density (25°C):	1.07 g/cm³
end pressure (25°C):	3 x 10^{-8} mbar
vapour pressure (20°C):	2.65 x 10-7 mbar
viscosity (25°C):	40 mm²/s (cSt)
pour point:	<-20°C
flash point:	>221°C
boiling point (0.5 torr):	>215°C
Safety & Risk:	**REACH** compliant ✓
transportation (land, sea, air):	not classified as dangerous goods
health and hazard:	not classified as health and hazard risks
environmental:	not classified as environmental risks
Compatibility:	
pumps:	Applied, HSR, Balzers, Varian, Pfeiffer, Edwards, Leybold, … (suitable for most common diffusion pumps)
oils:	replacement for silicone oils (DC702, **DC704)** all mineral oils and others ■ Do not mix silicone oil with mineral oil

INDOMET TETRA

High productivity · Low operating costs · Short down times · Short cycle times

Application:



INDOMET TETRA is suitable for all types of diffusion pumps. It covers a large vacuum pressure range. The vapor pressure and the back streaming are so low that the use of traps for most vacuum applications is not required. Ultra-high vacuum up to the 10^{-8} mbar range (untrapped) and 10^{-10} mbar range (trapped) are accessible.

The ***INDOMET TETRA*** silicone oil for diffusion pumps is a significant improvement over mineral diffusion pump oils. The reconditioning of silicone oil after contact with air at high temperatures is much faster than mineral oil. Even at high oil temperature and air exposure the oxidation and hydrolysis rate is low.

The ***INDOMET TETRA*** silicone oil for diffusion pumps is a Phenyl-Methyl-Siloxane. This silicone oil achieves its maximum pumping speed and process pressure in less time than most mineral oils.

The chemical structure of ***INDOMET TETRA*** silicone oil results in a high oxidation resistance and leads to low water absorption at operating temperature. The oil does not react with metals, elastomers, or usual vacuum gases. It is specially designed to evacuate large amounts of oxygen. The chemical stability ensures a long life of the oil even under difficult conditions. Because of the low vapor pressure and low back streaming the chamber walls are oil-free and can easily be cleaned of process contamination. ***INDOMET TETRA*** is even under difficult operating conditions, chemically and thermally stable, this allows longer oil change intervals. Significantly higher productivity resulting in lower operating costs!

Features:

- Wide range of applications
- Chemically inert, high temperature stability
- Pumping speeds increased by 30% compared to mineral oils
- Low ultimate pressures
- Short time for oil changes and reconditioning
- Longer life, longer service intervals
- Low oil back-flow and low contamination of the process chamber

The technical data do not release the end user from his obligation to check the suitability of the product for the intended application.