

# **GAS COMPRESSION LUBRICANTS**

Premium Synthetic Lubricants for Gas Compression & Engine Application







## Introduction

Ultrachem has developed a complete line of premium lubricants for all hydrocarbon gas, process gas, and natural gas applications. Ultrachem's line of products have been field tested and in use for many years in all gas compression related applications. These products are proven performers in protecting compressor and engine parts from increased amounts of wear and deposit formation which keeps equipment running efficiently. Resistance to gas absorbtion and wash-off from liquids helps maintain effective lubrication for extended hours of maintenance-free service. Ultrachem's synthetic gas compression lubricants have a film strength and viscosity index that are superior to conventional mineral-based fluids, helping the fluid maintain an optimal viscosity for extended protection.

The Ultrachem gas compression collection of premium compressor and engine lubricants contains a wide variety of products built with several different base oils and viscosities to cover all applications. Please contact Ultrachem for further specifications on these products and their suitable applications.





#### PGWS Series: PAG based compressor lubricant

The PGWS series are fully synthetic lubricants formulated with premium polyalkylene glycol (PAG) base oils. The PGWS lubricants are designed for use in compressors, vacuum pumps, enclosed gears, bearings, and other applications where unique properties of these fluids are necessary. The use of the PGWS oils in gas compression preserves the unique viscosity-temperature relationships of these premium products by resisting thinning out by hydrocarbon dilution. PGWS lubricants yield a compressor service life of 8,000 – 10,000 hours under good operating conditions.

PRODUCT	ISO GRADE	VISCOSITY@ 40°C/100°C	VISCOSITY INDEX	FLASH POINT °C/°F	POUR POINT °C/°F	SPECIFIC GRAVITY
PGWS 68	68	71/14.4	208	227/440	-46/-50	1.0-1.1
PGWS 100	100	93.3/17.9	211	227/440	-44/-47	1.0-1.1
PGWS 150	150	150/24.6	218	270/530	-42/-44	1.0-1.1
PGWS 220	220	220/38	225	280/540	-37/-35	1.0-1.1

#### PGWI Series: PAG based compressor lubricant

The PGWI Series are fully synthetic lubricants formulated with superior polyalkylene glycol (PAG)-based oils. These premium lubricants are designed for use in compressors and vacuum pumps compressing polar gases, such as NH3, CO2, and propane. They offer excellent rust resistance and are excellent in wet gas compression. The PGWI Series yield a compressor service life of 8,000 – 10,000 hours under good operating conditions.

PRODUCT	ISO GRADE	VISCOSITY@ 40°C/100°C	VISCOSITY INDEX	FLASH POINT °C/°F	POUR POINT °C/°F	SPECIFIC GRAVITY
PGWI 46	46	46/9.4	191	210/415	-50/-60	0.98
PGWI 68	68	69/12.9	193	230/445	-40/-40	0.98
PGWI 100	100	106/18.9	195	230/445	-40/-40	0.98
PGWI 150	150	154/25.7	195	230/445	-38/-36	0.99

#### Chemlube® NGBR Series: Synthetic compressor lubricant

Chemlube NGBR Series are fully synthetic lubricants formulated for smaller booster or recovery compressors, using superior synthetic base stocks and select additives. They are superior to conventional petroleum-based oils and will inhibit the formation of varnish and carbon build-up. Chemlube NGBR 20W and 30W allow for extended equipment life and decrease lubricant drain intervals, reducing the waste oil disposal costs and extending equipment life.

PRODUCT	ISO GRADE	VISCOSITY@ 40°C/100°C	VISCOSITY INDEX	FLASH POINT °C/°F	POUR POINT °C/°F	SPECIFIC GRAVITY
Chemlube NGBR 20W	46	50/8.75	154	253/489	-49/-56	0.88
Chemlube NGBR 30W	100	96.9/13.4	139	248/479	-49/-56	0.88

#### Chemlube® NGC Series: Synthetic blend compressor lubricant

Chemlube NGC Series are fully synthetic blends, formulated utilizing superior base stock fortified with a proprietary additive package. Chemlube NGC 100 and 150 were designed to inhibit the formation of varnish and carbon build-up and also will protect against thermal break down and extend oxidative stability. They provide extended equipment life and decrease lubricant drain intervals.

PRODUCT	ISO GRADE	VISCOSITY@ 40°C/100°C	VISCOSITY INDEX	FLASH POINT °C/°F	POUR POINT °C/°F	SPECIFIC GRAVITY
Chemlube NGC 100	100	97.3/16.04	178	252/486	-36/-33	0.88
Chemlube NGC 150	150	151/18.05	139	252/486	-36/-33	0.88



### Chemlube® NGE Series: Synthetic natural gas engine oil

The ChemlubeNGE Series fluids are fully synthetic ester/ polyalphaolefin (PAO)-based gas engine oils. The NGE Series are low ash oils that have been developed for four-cycle gas engines that are naturally aspirated to slightly turbocharged. Chemlube NGE Synthetic Oil Series provide low temperature pump-ability for remote engines operated in cold weather or intermittently. They are suitable for use in Caterpillar, Cooper-Bessemer, Cooper Superior, Cummins, Dresser-Rand Category I & II and Waukesha.

Chemlube NGE Synthetic Oil Series are appropriate for use in most industrial power plants fueled by dry, sweet natural gas. They provide low carbon formation, resistance to oxidation and nitration and superior deposit control due to the 100% synthetic base and select additives

PRODUCT	ISO GRADE	VISCOSITY@ 40°C/100°C	VISCOSITY INDEX	FLASH POINT °C/°F	POUR POINT °C/°F	SPECIFIC GRAVITY
Chemlube NGE 5W-40	n/a	85/15.6	197	>121/>250	-46/-51	1.0
Chemlube NGE 20W	46	70/8.5	90	>121/>250	-46/-51	1.0
Chemlube NGE 30W	100	101/13.6	136	>121/>250	-46/-51	1.0

#### Chemlube® Diester Series: Synthetic compressor lubricant

The Chemlube diester-based series are fully synthetic compressor oils specially formulated with premium diester base fluids for use in a wide variety of air compressors. These diester base oils are designed to meet a multitude of demanding applications where traditional petroleum based lubricants may not be desirable.. Chemlube 501 and 751 are recommended for use in high pressure air applications; and can be used for piston and frame lubrication in reciprocating compressors and vacuum pumps using the following gases:

Air	Ethylene	Methane	Propane
Butadiene	Natural Gas	Synthesis Gas	Carbon Monoxide
Carbon Dioxide (dry)	Helium	Hydrogen Sulfide (dry)	Nitrogen
Furnace (crack) Gas	Hydrogen	Sulphur Hexafluoride	

PRODUCT	ISO GRADE	VISCOSITY@ 40°C/100°C	VISCOSITY INDEX	FLASH POINT °C/°F	POUR POINT °C/°F	SPECIFIC GRAVITY
Chemlube 501	100	99/10.2	83	260/500	-29/-30	0.95
Chemlube 751	150	146.5/13.3	90	271/520	-34/-30	0.94

## Chemlube<sup>®</sup> Plus Series: Premium synthetic compressor lubricant

The Chemlube Plus Series is made with a very thermally and oxidatively stable polyol ester (POE) blend. These fully synthetic premium lubricants are formulated to form less varnish under high temperature applications and to be more resistant to acidic intake air than the polyalkylene glycol coolants. Under normal operating conditions you can expect to obtain up to 11,000 hours of lubricant service life.

PRODUCT	ISO GRADE	VISCOSITY@ 40°C/100°C	VISCOSITY INDEX	FLASH POINT °C/°F	POUR POINT °C/°F	SPECIFIC GRAVITY
Chemlube Plus 32	32	32/6.3	125	240/464	-50/-58	0.88
Chemlube Plus 10	46	44.4/7.3	126	240/464	-50/-58	0.89
Chemlube Plus 68	68	66/9.9	132	240/464	-46/-51	0.88



## Chemlube® 700 Series: Synthetic multi-purpose lubricant

The Chemlube<sup>®</sup> 700 Series are fully synthetic and have been formulated from premium polyalphaolefins (PAO) base fluids for enclosed gear systems requiring ashless antioxidants, anti-wear and mild EP additive systems. These oils have been designed to provide superior lubrication under hydrodynamic and mild boundary lubrication conditions. They are recommended for gear systems where moderate loads and high temperatures are expected, including worm gears containing soft metals such as bronze, brass and copper.

The Chemlube<sup>®</sup> 700 Series oils are multipurpose lubricants that can be used a wide variety of industrial applications. They are similar to petroleum oils in their compatibility to seals, hoses, gaskets and paint.

PRODUCT	ISO GRADE	VISCOSITY@ 40°C/100°C	VISCOSITY INDEX	FLASH POINT °C/°F	POUR POINT °C/°F	SPECIFIC GRAVITY
Chemlube <sup>®</sup> 724	32	32.9/6.2	140	240/464	-48/-54	0.86
Chemlube® 725	46	47/7.9	141	240/464	-48/-54	0.85
Chemlube® 726	68	67/10.2	135	238/460	-48/-54	0.85
Chemlube® 727	100	104/13.4	154	260/500	-45/-49	0.87
Chemlube® 729	150	163/17.9	149	260/500	-45/-49	0.86

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