

## PARTHAN PG 150 INDUSTRIAL GEARBOX OILS

### SPECIAL FEATURES

PARTHAN PG 150 is a high performance synthetic gas compressor lubricant based on a Polyalkylene glycol. It is designed for enclosed pattern gas compressors for hydrocarbon and chemical gases where the crankcase and bearings operate in a gas-filled atmosphere. Under these conditions the gas is readily soluble in mineral oil lubricants which, on dilution, suffer a significant drop in viscosity (please refer to attachment giving graph of viscosity/ Pressure) and lubricant performance. This problem can be overcome by using PARTHAN PG in which the gases are much less soluble. PARTHAN PG is particularly suitable for marine service on vessels carrying specialist liquefied gas cargoes.

#### **ADVANTAGES**

PARTHAN PG 150 offers the following advantages over mineral oils and competitive synthetic fluids:

- Reduced gas solubility leading to improved wear protection, extended lubricant life, improved compressor efficiency and reduced foaming
- Multigas service for a wide range of gases including vinyl chloride and butadiene. The lubricant does not promote the dimerisation of butadiene or generate solid deposits
- PARTHAN PG 150 therefore obviates the need to change to mineral oil for butadiene compression, thus simplifying the lubricant inventory, avoiding mistakes and saving time and expense

#### **APPLICATIONS**

PARTHAN PG 150 is used for the following gases:

- Liquefied petroleum gases such as propane and butane
- Liquefied natural gases such as methane and ethane
- Hydrocarbon chemical gases such as ethylene, propylene and butylene
- Chemical gases such as ammonia, vinyl chloride and butadiene

Ideally compression gas should be dry, but this product will tolerate up to 4 % water before becoming hazy at 80°C. Common seal and gasket materials are unaffected by PARTHAN PG Series. Nitrile Rubber (NBR), Fluoro-Silicone or Vinyl-Methyl Polysiloxane are recommended.

Ordinary industrial paints soften in the presence of this product. Two-pack epoxy formulations are normally resistant. This product should not be mixed with mineral oil.

PARTHAN PG 150 is a clear pale yellow viscous liquid with a mild odour.



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#### **PHYSICO-CHEMICAL PROPERTIES**

	PARTHAN PG 150	Method
Kinematic viscosity	185 mm2/s at 40°C	ASTM D445
	35 mm2/s at100°C	
Viscosity Index	>230	ASTM D2Z70
Relative density	1.050 at 20°C	ASTM D1296
Flash point COC, °C	> 290°C	ASTM D92
Pour point, °C	-40°C	ASTM D97
Foam test (with air)		ASTM D892
Sequence I (24°C)	0/0	
Sequence II (93.5°C)	0/0	
Sequence III (24°C)	0/0	
Air Release value	12 min	IP313
Copper corrosion	1a	ASTM D130
Steam turbine corrosion test with	Pass	ASTM D665A
disliiled water		
Oxidative stabliity <(95°C) V100 change	+0.6%	ASTM D2893
4-ball		IP 139
Wear scar (40kg_1 hr, RT)	0.48 mm	
Weld load	180 kg	