

# **HQ POE oils**

High-Quality lubricants for the maintenance of your refrigeration systems



# Our full range of HQ PQE oils With over 150 years of expertise in the refrigeration and air conditioning industry, Climalife has developed and extended its range of HQ PQE oils to meet every need.

Our High Quality synthetic polyolester lubricants are formulated for refrigeration compressors operating with **HFC, HFO and HFC/HFO refrigerant blends** in thermodynamic installations.

The properties of the **HQ POE** range provide effective protection against wear on moving parts and enable use over a wide range of operating temperatures.

Oil is a key element in an installation. It must be selected with care to ensure that the compressor operates correctly, and be compatible with the refrigerant used, in accordance with the application and compressor manufacturer's recommendations.

	HQ POE 22	HQ POE 32	HQ POE 46	HQ POE 68	HQ POE 100	HQ POE 170	HQ POE 220
ISO Grade	22	32	46	68	100	170	220
Viscosity at 40°C (cSt) - ASTM D445	18.9	32	46	68	100	170	220
Viscosity at 100°C (cSt) - ASTM D445	4.2	5.7	7.2	9.5	11.9	16.2	19.2
Viscosity index - ASTM D2270	124	119	121	118	109	100	98
Pour point (°C) - ASTM D97	-60	-48	-42	-39	-30	-24	-24
Flash point (°C) - ASTM D92	254	245	252	264	270	280	290
Density at 20°C (g/ml) - ASTM D1298	0.994	0.978	0.976	0.978	0.973	0.968	0.979
Acid value (mg KOH/g) - ASTM D974	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Water content (ppm)	< 50	< 50	< 50	< 50	< 50	< 50	< 50

# **Our packaging**

	HQ POE 22	HQ POE 32	HQ POE 46	HQ POE 68	HQ POE 100	HQ POE 170	HQ POE 220
1L metal can		<b>\</b>		<b>\</b>			
5L metal can	<b>\</b>	<b>\</b>	<b>\</b>	<b>~</b>	<b>\</b>	<b>\</b>	
20L metal can	<b>\</b>	<b>\</b>	<b>\</b>	<b>\</b>	<b>\</b>	<b>\</b>	<b>\</b>



Please contact us for information about drum packaging.





 Different viscosity grades to cover all lubrication needs.



 Wide range of operating temperatures.



• Effective protection against wear on moving parts and corrosion.



• Optimised system lifetime.



• Ideal for plant maintenance.









## How do you select the right oil for your system?

The choice of the oil/refrigerant combination is crucial for the smooth operation of a system.

Optimal performance of a system can be achieved by selecting refrigerants and oils that are compatible with the compressors, evaporator types (direct expansion or flooded systems) and desired operating conditions.

The refrigeration circuit is subject to thermodynamic phenomena (pressure, temperature, expansion, etc.), which requires perfect compatibility between the oil and the refrigerant.



### Oil has several main functions in a refrigeration circuit:

- Lubrication of moving parts.
- Tightness of the system through swelling of the seals.
- Cooling in the case of screw compressors, for example.

While oil is essential to a compressor to limit friction and wear, and to improve sealing during compression, its presence in the refrigerant circuit must be kept to a minimum to prevent heat exchange losses.

With many years of expertise, Climalife's technical team will help you select the right oil.

# Our added value

Oil reveals all the anomalies in a system. Our R&D department has developed tools for the preventive maintenance of installations.

Regular analysis enables the general condition of a system to be monitored and diagnose the oil in operation so that maintenance requirements can be anticipated.



### Our Axilis® oil analyses





### On site:

### Instant diagnosis

Acitest Unipro WW: instantly checks the acidity level of refrigeration oil.

- Indicates its condition: good, borderline, acidic.
- A single product for all types of oil: MN, AB, PAG, PAO, POE (with or without additives).
- Easy to use: fill the bottle to the edge of the label with the oil sample, shake, leave to settle and observe the colour change.
- Non-flammable and toluene-free.



# In the laboratory: Periodic oil diagnosis (DPH)

DPH: laboratory analysis that provides a comprehensive assessment of the condition

- Sampling kit.
- Frequency of your choice.
- Several elements measured: (appearance, viscosity, acid number, water and element content, gravimetry).

of the oil in service, based on standard values and characteristics of the installation.

Recommendations from our experts based on the oil, refrigerant and compressor model.

### Select your DPH\* kit according to your needs:

DPH A	Appearance + viscosity + acid number + water content + wear elements + additives + contaminants
DPH B	DPH A + dielectric strength
DPH G	DPH A + gravimetry

<sup>\*</sup>The offer may vary from country to country so please contact your Climalife representative.





