



## **UNI-TEMP**

### **REFRIGERATION OIL**

#### **BEYOND SYNTHETIC®**

Uni-Temp™ is a long life, energy-efficient, synthetic refrigeration lubricant that provides superior performance in both rotary screw and reciprocating refrigeration compressors. Uni-Temp™ is formulated with Royal Purple's proprietary Synerlec® additive technology giving it significant performance advantages. It has excellent oxidation stability to keep compressors clean while also providing greatly extended oil drain intervals. Uni-Temp™ consistently produces large energy savings when replacing other mineral and synthetic refrigeration oils\*. These savings typically pay for the total cost of the oil within a few months.

In ammonia compressors Uni-Temp™ typically reduces or eliminates oil carryover from the compressor into the cold side of the system. It is also wax-free and therefore does not congeal on the evaporator coils. Cooling efficiency is maximized and the need to shut down the system to clean the coils is eliminated.

Uni-Temp™ is recommended wherever cost savings through improved equipment utilization and reduced energy use and oil consumption is desired.

\*Average energy savings after switching to Royal Purple, which was documented via a data logger in 34 ammonia compressors, was 10.11 percent. Uni-Temp™ is an undyed product. Uni-Temp™ 300 is NSF certified for H2 service.

Note: Uni-Temp™ has not been extensively tested in 134a refrigerant systems.

#### **SYNERLEC® ADDITIVE TECHNOLOGY MAKES THE DIFFERENCE!**

Synthetic oils enable Royal Purple to make superior lubricants, but it is Royal Purple's advanced Synerlec additive technology that gives its lubricants their amazing performance advantages. Synerlec additive technology truly is beyond synthetic.

Synerlec additive technology forms a tough, slippery, synthetic film on all metal surfaces. This proprietary film significantly improves lubrication: first, by increasing the oil film's thickness, and second, by increasing the oil film's toughness, both of which help to prevent metal-to-metal contact. It displaces moisture from metal surfaces and protects all metals against rust and corrosion. It also fortifies the oil against the detrimental effects of heat, which causes oil to oxidize.

#### **PERFORMANCE ADVANTAGES**

##### **High Film Strength**

Uni-Temp contains Royal Purple's Synerlec additive technology for maximum wear protection.

##### **Saves Energy**

Uni-Temp typically produces energy savings many times greater than the total cost of the oil.

##### **Wax-free**

Uni-Temp has no flock point and does not congeal on evaporator coils, thereby maintaining maximum cooling efficiency.

##### **Reduces Oil Consumption**

Uni-Temp reduces oil usage by greatly extending oil drain intervals due to its longer oil life and reducing or eliminating makeup oil requirements by lessening oil carryover into the system.

##### **Improves Equipment Utilization**

Uni-Temp keeps evaporator coils and expansion valves clean and improves equipment reliability and minimizes unscheduled downtime.



**Excellent Demulsibility**

Uni-Temp rapidly and completely separates from water.

**Compatible with Other Oils**

Uni-Temp is compatible with PAO and POE synthetic and mineral refrigeration oils. (It is not compatible with polyalkylene glycols.)

**Excellent for Food Processing Plants**

Uni-Temp is NSF certified for H2 service and excellent for blast-freezer service.

**Works in Multiple Types of Compressors**

Uni-Temp is ideal for refrigerant compressors specifying the use of ISO 32 or ISO 68 viscosity grade lubricants

**For Use with Most Refrigerants**

Uni-Temp is recommended for use with ammonia, propane, all CFC / HCFC fluorocarbon freons such as R-12, R-22, R-114, etc., but Uni-Temp has not been extensively tested in HFC refrigerant compressors.

Typical Properties*	Method	150	300
Viscosity	D-445		
cSt @ 40°C		30.7	56
cSt @ 100°C		5.7	8.5
Viscosity Index	D-2270	131	126
Flash Point, °F/°C	D-92	476/247	496/258
Pour Point, °F/°C	D-6892	-38/-39	-65/-54
Rust Test	D-665		
Fresh Water		PASS	PASS
Salt Water		PASS	PASS
Timken OK Load, lbs		60	60
Density, lbs/g	D-4052	7.09	7.14

*\*Properties are typical and may vary.*