

# PRODUCT BULLETIN

## REFRIGERATION OILS 3-71

### Premium Synthetic Ester Lubricants For Refrigeration Systems

With more than 30 years in synthetic POE technology, Castrol has developed the Icematic® SW series, which has become the preferred lubricant of refrigeration engineers worldwide. The Icematic series is specially formulated from premium POE basestocks to provide excellent lubricity and wear protection while also allowing for proper miscibility with HFC refrigerants.

#### The Icematic SW series offers the following advantages:

- Ideal for initial fill and retrofit applications
- Proven performance in HFC, HCFC and CFC refrigeration systems
- OEM approved
- Compatible with existing refrigeration lubricants
- Worldwide technical support and product availability
- Full range of viscosities



Castrol Icematic	1 Quart	1 Gallon	5 Gallons	55 Gallons
22CC	4313-24	4313-26	4313-25	4313-21
SW32	4314-24	4314-06	4314-05	4314-01
SW68	4316-24	4316-06	4316-05	4316-01
E68	4316-14	4316-16	4316-15	
SW100		4317-06		
SW220		4318-07	4318-05	

### Typical Physical Properties and Compressor Applications

		Castrol Icematic							
Test	Method	SW20	SW32	SW46	SW68	E68	E100	SW100	SW220
Kinematic Viscosity, 40° C (cSt)	ASTM D445	20	32	46	68	68	100	100	220
Kinematic Viscosity, 100° C (cSt)	ASTM D445	4.4	5.7	7.0	8.8	8.8	11.4	11.4	19.0
Pour Point (°C)	ASTM D97	-60	-54	-42	-39	-42	-36	-33	-27
Closed Flash Point (°C)	ASTM D93	230	245	245	250	250	255	255	20
Total acid number (mgKOH/g)	ASTM D664	0.05	0.15	0.15	0.15	0.05	0.05	0.05	0.05
Water (ppm)	ASTM D1744	50	50	50	50	50	50	50	50
<b>Application: Domestic/Industrial Air Conditioning</b>									
<b>Compressor Types:</b>									
Reciprocating-Semi-Hermetic		■	■	■	■	■			
Rotary		■	■	■	■	■			
Scroll			■	■	■	■			
Centrifugal			■	■	■	■			■
Screw					■	■	■	■	■
<b>Application: Mobile/Automotive Air Conditioning</b>									
<b>Compressor Types:</b>									
Reciprocating-Semi-Hermetic							■	■	
Rotary Vane							■	■	
Swash Plate							■	■	

Refrigerant Type	Lower Critical Solution Temperature (°F)							
	R-12 CFC	R-134a HFC	R-502 CFC	R-507 HFC	R-404a HFC	R-22 HCFC	R-407c HFC	R-410a HFC
Icematic SW 20	<-58	<-58	<-58	N/A	<-58	<-58	-29	N/A
Icematic SW 32	<-58	<-58	<-58	<-58	<-58	<-58	<-58	<-58
Icematic SW 68	<-58	-40	<-58	<-58	<-58	<-58	-22	<-58
Icematic SW 100	<-58	-27	<-58	N/A	<-58	<-58	-9	N/A
Icematic SW 220	<-58	-8	<-58	N/A	<-58	<-58	N/A	N/A