

# DuPont Suva® Refrigerants Suggested Oil Guide

## Stationary Refrigeration Applications

### Direct Expansion Applications

Refrigerant	Lubricant*
R-12 ①	MO or AB
• 134a (R-134a) ③	POE
• MP39 (R-401A) ②	MO or AB
• 409A (R-409A) ②	MO or AB
R-500 ①	MO or AB
• MP66 (R-401B) ②	MO or AB
R-13 ①	MO or AB
R-503 ①	MO or AB
R-23 ③	POE
• 95 (R-508B) ④	POE

Refrigerant	Lubricant*
R-502 ①	MO or AB
• HP62 (R-404A) ③	POE
• 507 (R-507) ③	POE
• HP80 (R-402A) ②	AB
• 408A (R-408A) ②	AB
• HP81 (R-402B) ②	MO or AB
R-22 ②	MO or AB
• 407C (R-407C) ③	POE
• 410A (R-410A) ③ <small>NEW EQUIPMENT DESIGN</small>	POE

MO = Mineral Oil      AB = Alkylbenzene      POE = Polyol Ester  
 • Suva® Refrigerants      ① CFC Refrigerant      ② HCFC Refrigerant  
 ③ HFC Refrigerant      ④ PFC Refrigerant

\* HCFC refrigerants are also compatible with POE lubricants. Some fractional horsepower replacement compressors are shipped with POE.

#### Oil Change Guidelines

- Where possible, use OEM-recommended oil type, charge size, and viscosity.
- When converting many CFC systems to an HCFC service refrigerant (Suva® MP39, 409A, MP66, HP80, 408A, or HP81), AB is the recommended lubricant for optimum oil return. One compressor oil change to AB will typically remove between 50 and 80% of the existing MO which satisfies the recommendations/requirements of most compressor manufacturers.

**Note:** Many compressors already contain AB lubricant, therefore no oil change is required when converting to an HCFC.

- *Field experience has shown that Suva® MP39, 409A, MP66, and HP81 work successfully with the existing MO in many unitary and other close-coupled systems.*
- When converting a CFC system to an HFC refrigerant (Suva® 134a, HP62, 507, 407C, or 95), POE is the recommended lubricant. At least 95% of the MO, or AB should be replaced with POE of similar viscosity. This typically requires multiple oil changes.

#### What to Expect After Retrofit

Suva® HP62, HP80, 408A, 507, and HP81 are compared to R-502.  
 Suva® MP39, MP66, 409A, and R-134a are compared to R-12  
 Suva® 407C is compared to R-22  
 \*Suva® 407C is compared to R-502  
 Suva® 95 is compared to R-503

+ is increase  
 - is decrease

This information is intended to serve as a guide; the actual performance may vary.

Refrigerant	Discharge Pressure (psi)	Suction Pressure (psi)	Discharge Temperature (F)	Refrigeration Capacity (%)	Expected Superheat (F)
134a	+10	-2	-10	-10	-4
MP39	+20	Same	+25	+10	-3
MP66	+30	+2	+30	+15	-1
409A	+25	Same	+30	+10	-4
HP80	+40	+5	-5	+15	+4
HP81	+30	+5	+15	+15	Same
408A	+5	Same	+20	+5	-3
HP62	+20	Same	-10	Same	+2
507	+30	Same	-15	Same	+4
407C	+15	Same	-15	Same	+1
407C*	-5	-8	+30	-5	-4
95	+2	Same	-40	-2	Same