

Refrigerants/Lubricants Approved For Use In Copeland® Compressors

	Refrigerants	Similar To	Application		Lubricant Choices			Comments	
			Retrofit	New	Preferred	Alternate #1	Alternate #2		
Ozone Depleting	CFC R-12		LM	LM	MIN	AB & MIN		Phased Out In 1996	
	CFC R-502		LM	LM	MIN	AB & MIN	POE	Phased Out In 1996	
	HCFC R-22 ⁴		LMH	LMH	MIN	AB & MIN	POE	Phaseout By 2020	
Interims	HCFC R401A	R-12	MH	N/A	AB & MIN	POE & MIN	POE	Service Only Suva® MP39	
	HCFC R-401B	R-12	LM	N/A	AB & MIN	POE & MIN	POE	Service Only Suva® MP66	
	HCFC R-402A	R-502	LM	N/A	AB & MIN	POE & MIN	POE	Service Only Suva® HP80	
	HCFC R-402B ²	R-502	LM	N/A	AB & MIN	POE & MIN	POE	Service Only Suva® HP81	
	HCFC R-408A	R-502	LM	N/A	AB & MIN	POE & MIN	POE	Service Only FX10	
	HCFC R-409A	R-12	LM	N/A	AB & MIN	POE & MIN	POE	Service Only FX56	
Non-Ozone Depleting	HFC R-134a	R-12	MH	MH	POE				
	HFC R-404A	R-502	LM	LM	POE			Suva® HP62, Forane® FX70	
	HFC R-507	R-502	LM	LM	POE			Genetron® AZ50	
	HFC R-407C ⁴	R-22	LMH	LMH	POE			Suva® 9000/KLEA 66	
	HFC R-422A/D	R-22	LM	N/A	POE	MIN ³	AB	Discus® Only Aftermarket Replacement	
	HFC R-407A ⁴	R-22	LM	LM	POE			Discus® Only	
	HFC R-410A			H	POE			Genetron® AZ20/Suva® 9100**	
Copeland Screw™ Compressors Only	HFC R-134a		MH		SOLEST 170				
	HFC R-407C		MH		SOLEST 170				
	HFC R-507		LMH		SOLEST 170				
	HFC R-404A		LMH		SOLEST 170				
	HCFC R-22		MH		CP4214 320				SC Models Only
	HCFC R-22		LMH		CP4214 150 or Ultra A100EP				SH Models Only

Legend:

MIN = Mineral Oil (Copeland® 46BWMO¹, Crompton Suniso 3GS, Chevron/Texaco Capella WF32 and Calumet RO15)
 AB = Copeland® Ultra 200, Alkyl Benzene (Shrieve Zerol 200 TD, Soltex AB200A, Crompton Suniso AKB200A or Fuchs Reniso SP46)
 POE = Copeland® Ultra 22 CC, Copeland® Ultra 32 CC, Copeland® Ultra 32-3MAF, Mobil EAL™ Arctic 22 CC or Uniqema RL32-3MAF
 POE & MIN = Minimum 50% POE
 AB & MIN = Minimum 50% Alkyl Benzene (Shell 22-12 or Fuchs Reniso Triton MS46)
 L = Low temperature application
 M = Medium temperature application
 H = High temperature application

For specific product availability and performance data refer to Emerson Climate Technologies, Inc. sales literature.

*Refrigerant Changeover Guidelines

**New equipment only

¹ For R-22, this oil is factory charged for use on Copeland Scroll® A/C applications and is equivalent to Crompton Suniso 3GS

² Ice machine applications only

³ Oil separator required

⁴ Demand Cooling required for low temperature applications

Refer to the following Application Bulletins for additional information:

4-1295 HFC-134a Refrigerant Guidelines
 27-1308, 27-1309 and 27-1322 for Copeland Screw™ Compressors
 25-1177 Safe Handling Of Compressed Gases
 17-1233 Non-Standard Application of Copeland® Compressors
 93-02 CFC-12 To R-401A*
 93-03 CFC-12 To R-401B*
 93-04 CFC-12 To HFC-134a*
 93-05 R-502 To R-402A/R-408A*
 94-15 R-502 To R-404A/R-507*
 95-14 R-22 To R-407C*
 2005CC-54 HCFC R-22 To HFC R-404A/507
 2007CC-13 HCFC R-22 To HFC R-422A/D

MSDS sheets are available at EmersonClimate.com.

Compressor nameplates identify both the oil type and oil amount.

MIN = Mineral Oil
 POE = Polyol Ester Oil
 AB = Alkylbenzene