

DuPont Refrigerants

Cross Reference Guide

U.S. Refrigerants Cross Reference Guide

ASHRAE #	Tradenames	Supplier/ Manufacturer	Components	Type	DuPont Cyl. Size	Recommended Lubricant	Alternate Lubricant	Recommended Evaporator Temperature			Application
								High	Med	Low	
R-22 Replacements											
R-422A	ISCEON® M079 One Shot®	DuPont Icor International	125/134a/600a	HFC	24 lb. DAC* 100 lb. Cyl	MO	AB POE		X	X	Retrofit/New Equipment – Commercial & Industrial DX Refrigeration
R-422D	ISCEON® M029	DuPont	125/134a/600a	HFC	25 lb. DAC* 110 lb. Cyl	MO	AB POE	X	X	X	Retrofit – DX Water Chillers – Commercial & Industrial DX Refrigeration – Air Conditioning
R-417A	ISCEON® M059 NU-22™	DuPont Icor International	125/134a/600	HFC	25 lb. DAC* 110 lb. Cyl	MO	AB POE	X	X		Retrofit – Commercial & Industrial DX Refrigeration – Air Conditioning
R-410A	Suva® 410A Genetron® AZ-20® Forane® 410A Puron®	DuPont Honeywell Arkema Carrier	32/125	HFC	25 lb. DAC* 100 lb. Cyl ton tank (1350 lbs)	POE		X	X		New Equipment Only – Residential & Commercial A/C & heat pumps
R-407C	Suva® 407C Genetron® 407C Forane® 407C	DuPont Honeywell Arkema	32/125/134a	HFC	25 lb. DAC* 115 lb. Cyl ton tank (1550 lbs)	POE		X	X		New Equipment – Residential & Commercial A/C & heat pumps
R-12 Replacements											
R-423A	ISCEON® 39TC®	DuPont	134a/227ea	HFC	125 lb. Cyl	POE (one oil change)		X	X		Retrofit – Centrifugal Chillers
R-134a	Suva® 134a Genetron® 134a Forane® 134a	DuPont Honeywell Arkema	134a	HFC	30 lb. DAC* 125 lb. Cyl half ton tank (1025 lbs) ton tank (1750 lbs)	POE PAG (auto)		X	X		Retrofit/New Equipment – Commercial refrigeration – Appliances – Chillers – Automotive A/C
R-401A	Suva® MP39 Genetron® MP39	DuPont Honeywell	22/124/152a	HCFC	30 lb. DAC* 125 lb. Cyl ton tank (1700 lbs)	AB	MO		X	X	Retrofit – Commercial DX refrigeration
R-401B	Suva® MP66 Genetron® MP66	DuPont Honeywell	22/124/152a	HCFC	30 lb. DAC* 125 lb. Cyl ton tank (1700 lbs)	AB	MO		X	X	Retrofit – Commercial DX refrigeration – Transport refrigeration
R-409A	Suva® 409A Genetron® 409A Forane® 409A	DuPont Honeywell Arkema	22/124/142b	HCFC	30 lb. DAC* 125 lb. Cyl	AB	MO		X	X	Retrofit – Commercial DX refrigeration – Walk-in cooler

* Disposable cylinder



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(continued)

ASHRAE #	Tradenames	Supplier/ Manufacturer	Components	Type	DuPont Cyl. Size	Recommended Lubricant	Alternate Lubricant	Recommended Evaporator Temperature			Application
								High	Med	Low	
R-502 Replacements											
R-422A	ISCEON® MO79 One Shot®	DuPont Icor International	125/134a/600a	HFC	24 lb. DAC* 100 lb. Cyl	MO	AB POE		X	X	Retrofit/New Equipment – Commercial & Industrial DX Refrigeration
R-404A	Suva® 404A Genetron® 404A Forane® 404A	DuPont Honeywell Arkema	125/134a/143a	HFC	24 lb. DAC* 100 lb. Cyl half ton tank (800 lbs) ton tank (1300 lbs)	POE			X	X	New Equipment – Commercial & Industrial Refrigeration
R-408A	Suva® 408A Genetron® 408A Forane® 408A	DuPont Honeywell Arkema	22/125/143a	HCFC	24 lb. DAC* 100 lb. Cyl	AB	MO		X	X	Service Refrigerant – Commercial DX Refrigeration
R-507	Suva® 507 Forane® 507 Genetron® AZ-50®	DuPont Arkema Honeywell	125/143a	HCFC	25 lb. DAC* 100 lb. Cyl ton tank (1400 lbs)	POE			X	X	New Equipment – Commercial & Industrial
R-402A	Suva® HP80 Genetron® HP80	DuPont Honeywell	22/125/290	HCFC	27 lb. DAC* 110 lb. Cyl	AB	MO		X	X	Service Refrigerant – Commercial DX Refrigeration
R-402B	Suva® HP81 Genetron® HP81	DuPont Honeywell	22/125/290	HCFC	13 lb. DAC*	AB	MO		X	X	Service Refrigerant – Ice Machines
R-13, R-23, R-503 Replacement											
R-508B	Suva® 95	DuPont	23/116	PFC	10 lb. Cyl 20 lb. Cyl 70 lb. Cyl ton tank (1100 lbs)	POE			Very Low Temp (VLT) Below –40°F		Retrofit/New Equipment – Cascade Refrigeration Systems
R-11 Replacement											
R-123	Suva® 123 Genetron® Forane® 123	DuPont Honeywell Arkema	123	HCFC	100 lb. Drum 200 lb. Drum 625 lb. Drum	MO		X	X		Retrofit/New Equipment – Centrifugal Chillers
R-114 Replacements											
R-236fa	Suva® 236fa	DuPont	236fa	HFC	145 lb. Cyl	POE			X		Retrofit/New Equipment – Centrifugal Chillers
R-124	Suva® 124 Genetron® 124 Forane® 124	DuPont Honeywell Arkema	124	HCFC	30 lb. DAC* 145 lb. Cyl ton tank (2000 lbs)	AB			X		Retrofit – Industrial Refrigeration & A/C – High Ambient A/C

* Disposable cylinder

Footnotes:

- HFC refrigerants: (1) long-term replacements; (2) non-ozone depleting, (3) no phase-out date
- ISCEON® refrigerants: easy-to-use, cost-effective, mineral oil compatible (exception: ISCEON® 39TC® only one oil change to POE)
- All DuPont refrigerants are UL classified except: ISCEON® MO79, MO29 and 39TC®
- All DuPont refrigerants have A1 Safety classification except Suva® 123 which is rated B1.

Lubricant

- AB = Alkylbenzene
- MO = Mineral Oil
- POE = Polyol Ester

IF CUSTOMERS ASK FOR...			OFFER THEM...
Tradenames	ASHRAE #	Supplier/Manufacturer	DuPont Refrigerant
FREE ZONE™ RB276	--	Harold Electric Co.	Suva® 409A, Suva® MP39 (use Suva® 134a for Auto A/C)
FRIGC® FR-12	R-416A	CFC Refimax, LLC	Suva® 409A, Suva® MP39 (use Suva®134a for Auto A/C)
Genetron® AZ-20®	R-410A	Honeywell	Suva® 410A
Genetron® AZ-50®	R-507	Honeywell	Suva® 507
Hot Shot®	R-414B	ICOR International	Suva® 409A, Suva® MP39 (use Suva® 134a for Auto A/C)
Klea® 60	R-407A	INEOS	ISCEON® MO79
Klea® 61	R-407B	INEOS	Suva® 409A, Suva® MP39
Klea® 5R3	R-508A	INEOS	Suva® 95
NU-22™	R-417A	ICOR International	ISCEON® MO59
NU-22™ B	R-422B	ICOR International	ISCEON® MO29, ISCEON® MO59
One Shot®	R-422A	ICOR International	ISCEON® MO79
Puron®	R-410A	Carrier	Suva® 410A
Genetron® 410A	R-410A	Honeywell	Suva® 410A
Forane® 410A	R-410A	Arkema	Suva® 410A
RS-24	--	Refrigerant Services, Inc.	Suva® 134a
RS-25	--	Refrigerant Services, Inc.	ISCEON® 39TC® (centrifugal chillers)
RS-44	R-424A	Refrigerant Services, Inc.	ISCEON® MO29, ISCEON® MO59
RS-45	--	Refrigerant Services, Inc.	ISCEON® MO79, ISCEON® MO29
RS-52	--	Refrigerant Services, Inc.	ISCEON® MO79, ISCEON® MO29

SERVICE TIPS		
1.	DuPont Refrigerants without an oil change	DuPont™ ISCEON® 9 Series refrigerants are Mineral Oil compatible and typically do not require an oil change except ISCEON® 39TC® which requires only one oil change to POE.
2.	Topping Off the Charge	DuPont refrigerants can be topped off after a leak while servicing with same refrigerant. The remaining charge does NOT have to be removed. Repair all leaks.
3.	Refrigerant Charging	Remove refrigerant as a liquid only from the charging cylinder; do not charge liquid refrigerant directly into the compressor. The proper cylinder position for liquid removal is indicated by arrows on the disposable cylinder and disposable cylinder box.
4.	Mixing Refrigerants	DO NOT mix refrigerants with different "R" numbers. Uncertain performance or system damage can result.
5.	Checking for Leaks	DO NOT use mixtures of air and refrigerant under pressure to check for leaks—these mixtures can be combustible.
6.	HFC Leak Detection	HFCs are harder to detect than CFCs and HCFCs. Detector must be calibrated correctly. Consult your leak detector supplier.

PERFORMANCE COMPARISON OF REPLACEMENT REFRIGERANTS

Refrigerant	Compared to	Discharge Pressure (psi)		Discharge Temp (°F)		Est. Cooling Capacity (%)		Est. EER (%)	
		LT*	MT**	LT*	MT**	LT*	MT**	LT*	MT**
R-22 HFC Replacement									
ISCEON® M029	R-22	+10	+12	-31	-66	+8	-5	+14	Same
ISCEON® M079	R-22	+45	+53	-40	-70	+29	Same	+13	-8
ISCEON® M059	R-22	-19	-23	-25	-62	-5	-13	+12	-1
R-502 HFC Replacement									
ISCEON® M079	R-502	+3	+30	-13	-19	-1	Same	-4	Same
Suva® 404A	R-502	+1	+27	Same	-10	+1	+1	-2	-3

* Low Temp: -25°F (-32°C) evaporator, 105°F (41°C) condenser, 65°F (18°C) return gas, 10°F (6°C) subcooling.

** Med Temp: 20°F (-7°C) evaporator, 120°F (49°C) condenser, 65°F (18°C) return gas, 10°F (6°C) subcooling.

R-22 assumes demand cooling with discharge temp of 275°F (135°C).

Refrigerant	Compared to	Discharge Pressure (psi)		Discharge Temp (°F)		Est. Cooling Capacity (%)	
		LT*	MT**	LT*	MT**	LT*	MT**
R-12 HFC Replacement							
ISCEON® 39TC®	R-12	+30		-20		0 to -5	
Suva® 134A	R-12	+10		-10		-10	
R-13, R-23, R-503 Replacement							
Suva® 95	R-503	+2		-40		-2	
Service Refrigerants^							
Suva® MP39	R-12	+20		+25		+10	
Suva® MP66	R-12	+30		+30		+15	
Suva® 404A	R-12	+25		+30		+10	

Performance data based on normal application conditions and is intended to serve as a guide; actual performance will vary depending on system design and conditions.

+ is increase - is decrease

^ HCFCs are subject to phase-out under the Montreal Protocol

For Further Information: (800) 235-7882

www.refrigerants.dupont.com

DuPont Fluorochemicals

Wilmington, DE 19880-0711

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