

New substitutes added under SNAP programme

In the United States, the Environment Protection Authority (EPA) has approved new substitutes to be included under its SNAP programme for use in refrigeration and air-conditioning, aerosol solvents and adhesives, coatings and inks. The acceptable substitutes, segregated by end-use and the ODS being replaced, identified by EPA are listed below.

End-use	ODS to be replaced	Acceptable substitutes
<i>Refrigeration and air-conditioning:</i>		
Very low temperature refrigeration (new equipment only)	CFC-13	PFC-1102HC
	CFC-113	PFC-662HC
	CFC-114	PFC-552HC
	Blends thereof	FLC-15
Very low temperature refrigeration (retrofit and new)	HCFC-123	Hydrofluoro-ether-7000
Industrial process refrigeration (retrofit and new)	CFC-11	Hydrofluoro-ether-7000
	CFC-113	
	CFC-12	ISCEON 39TC
	HCFC-22	R-404A
Non-mechanical heat transfer (retrofit and new)	CFC-11 CFC-113	Hydrofluoro-ether-7000
Centrifugal chillers (retrofit and new)	CFC-12	ISCEON 39TC
Industrial process air-conditioning (new and retrofit)	CFC-12	ISCEON 39TC
Cold storage warehouses (retrofit and new)	CFC-12	ISCEON 39TC

End-use	ODS to be replaced	Acceptable substitutes
Ice skating rinks (retrofit and new)	CFC-12	ISCEON 39TC
The following end uses (retrofit and new): <ul style="list-style-type: none"> ● Centrifugal chiller ● Reciprocating chillers ● Industrial process refrigeration ● Industrial process air-conditioning ● Refrigerated transport ● Residential air-conditioning and heat pumps ● Residential dehumidifiers ● Motor vehicle air-conditioning (buses only) 	HCFC-22	R125/134a/600a (at a composition ratio of 28.1/70.01/1.9)
The following end uses (retrofit and new): <ul style="list-style-type: none"> ● Household and light commercial air-conditioning ● Centrifugal chiller ● Reciprocating chillers ● Screw chillers ● Industrial process refrigeration ● Industrial process air-conditioning ● Cold storage warehouses ● Refrigerated transport ● Retail food refrigeration ● Commercial ice machines ● Vending machines ● Water coolers ● Household refrigerators ● Household freezers ● Ice skating rinks ● Non-mechanical heat transfer 	HCFC-22	ISCEON 59/NU-22 [R-125/134a/600 (at a composition ratio of 46.6/50.0/3.4)]
<i>Aerosol solvents:</i>		
Aerosol solvents	CFC-113 HCFC-141b	HFC-245fa
<i>Adhesives, coatings and inks:</i>		
Adhesives, coatings and inks	CFC-113 HCFC-141b Methyl chloroform	Hydrofluoro-ether-7100 Hydrofluoro-ether-7200