

Table 1A. Physical Properties of Single Component Refrigerants

	Reporting Units	Reference (Subclause)	R-11	R-12	R-13	R-22	R-113	R-114	R-123	R-124
<i>CHARACTERISTICS*:</i>										
Boiling Point*	°F @ 1.00 atm	---	74.9	-21.6	-114.6	-41.4	117.6	38.8	82.6	12.2
	°C @ 1.00 atm	---	23.8	-29.8	-81.4	-40.8	47.6	3.8	27.9	-11.0
Boiling Point Range*	K	---	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.3
Typical Isomer Content	by weight	---					0-1% R-113a	0-30% R-114a	0-8% R-123a	0-5% R-124a
<i>VAPOR PHASE CONTAMINANTS:</i>										
Air and other non-condensables	% by volume @ 25°C	5.9	N/A**	1.5	1.5	1.5	N/A**	1.5	N/A**	1.5
<i>LIQUID PHASE CONTAMINANTS:</i>										
Water	ppm by weight	5.4	20	10	10	10	20	10	20	10
All other impurities including refrigerants	% by weight	5.1	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
High boiling residue	% by volume	5.7	0.01	0.01	0.05	0.01	0.03	0.01	0.01	0.01
Particulates/solids	Visually clean to pass	5.8	pass	pass	pass	pass	pass	pass	pass	pass
Acidity	ppm by weight	5.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Chlorides***	No visible turbidity	5.5	pass	pass	pass	pass	pass	pass	pass	pass

* Boiling points and boiling point ranges, although not required, are provided for informational purposes.

** Since R-11, R-13, and R-123 have normal boiling points at or above room temperature, non-condensable determinations are not required for these refrigerants.

*** Recognized chloride level for pass/fail is 3ppm.