CLAIMS

1. A composition comprising:

   (A) a compound of the formula $CF_3CX=CHR_a$ where X is H or F and R_a is CF_3CF_2, CF_3 or Cl, provided that (i) when X is F, R_a is Cl, (ii) when R_a is CF_3CF_2 or Cl, the compound of formula $CF_3CX=CHR_a$ is the E configurational isomer, and (iii) when R_a is CF_3, the compound of formula $CF_3CX=CHR_a$ is the Z configurational isomer; and

   (B) a compound of the formula CF_3R_b where R_b is $CHFCH_2F$;

   wherein the component B compound is present in the composition in an amount effective to form an azeotropic or azeotrope-like combination with the component A compound in the composition.

2. The composition of Claim 1 consisting essentially of:

   (a) E-1,1,1,4,4,5,5,5-octafluoro-2-pentene; and

   (b) 1,1,1,2,3-pentafluoropropane; wherein the 1,1,1,2,3-pentafluoropropane is present in an effective amount to form an azeotropic combination with the E-1,1,1,4,4,5,5,5-octafluoro-2-pentene.

3. The composition of Claim 1 consisting essentially of:

   (a) E-1,1,1,4,4,5,5,5-octafluoro-2-pentene; and

   (b) 1,1,1,2,3-pentafluoropropane; wherein the 1,1,1,2,3-pentafluoropropane is present in an effective amount to form an azeotrope-like combination with the E-1,1,1,4,4,5,5,5-octafluoro-2-pentene.

4. The composition of Claim 1 consisting essentially of:

   (a) E-1-chloro-3,3,3-trifluoropropene; and

(b) 1,1,1,2,3-pentafluoropropane; wherein the 1,1,1,2,3-pentafluoropropane is present in an effective amount to form an azeotropic combination with the E-1-chloro-3,3,3-trifluoropropene.

5. The composition of Claim 1 consisting essentially of:

(a) E-1-chloro-3,3,3-trifluoropropene; and

(b) 1,1,1,2,3-pentafluoropropane; wherein the 1,1,1,2,3-pentafluoropropane is present in an effective amount to form an azeotrope-like combination with the E-1-chloro-3,3,3-trifluoropropene.

6. The composition of Claim 1 consisting essentially of:

(a) E-1-chloro-2,3,3,3-tetrafluoropropene; and

(b) 1,1,1,2,3-pentafluoropropane; wherein the 1,1,1,2,3-pentafluoropropane is present in an effective amount to form an azeotrope-like combination with the E-1-chloro-2,3,3,3-tetrafluoropropene.

7. The composition of Claim 1 consisting essentially of:

(a) Z-1,1,1,4,4,4-hexafluoro-2-butene; and

(b) 1,1,1,2,3-pentafluoropropane; wherein the 1,1,1,2,3-pentafluoropropane is present in an effective amount to form an azeotrope-like combination with the Z-1,1,1,4,4,4-hexafluoro-2-butene.

8. A process for preparing a thermoplastic or thermoset foam comprising using an azeotropic or azeotrope-like composition as a blowing agent, wherein said azeotropic or azeotrope-like composition is a composition of Claim 1.

9. A process for producing refrigeration comprising condensing an azeotropic or azeotrope-like composition and thereafter evaporating said azeotropic or azeotrope-like composition in the vicinity of the body to be cooled, wherein said azeotropic or azeotrope-like composition is a composition of Claim 1.

10. A process comprising using an azeotropic or azeotrope-like composition as a solvent, wherein said azeotropic or azeotrope-like composition is a composition of Claim 1.

11. A process for producing an aerosol product comprising using an azeotropic or azeotrope-like composition as a propellant, wherein said azeotropic or azeotrope-like composition is a composition of Claim 1.

12. A process comprising using an azeotropic or azeotrope-like composition as a heat transfer media, wherein said azeotropic or azeotrope-like composition is a composition of Claim 1.

13. A process for extinguishing or suppressing a fire comprising using an azeotropic or azeotrope-like composition as a fire extinguishing or suppression agent, wherein said azeotropic or azeotrope-like composition is a composition of Claim 1.

14. A process comprising using an azeotropic or azeotrope-like composition as dielectrics, wherein said azeotropic or azeotrope-like composition is a composition of Claim 1.

CLAIMS

1. A composition consisting essentially of:
(a) E-1,1,1,4,4,5,5,5-octafluoro-2-pentene; and
(b) 1,1,1,2,3-pentafluoropropane; wherein the 1,1,1,2,3-pentafluoropropane is present in an effective amount to form an azeotropic combination with the E-1,1,1,4,4,5,5,5-octafluoro-2-pentene.

2. The composition of claim 1, consisting essentially of from about 3.9 mole % to about 24.1 mole % of E-1,1,1,4,4,5,5,5-octafluoro-2-pentene and from about 75.9 mole % to about 96.1 mole percent 1,1,1,2,3-pentafluoropropane.

3. The composition of claim 1, consisting essentially of from about 3.9 mole % to about 24.1 mole % of E-1,1,1,4,4,5,5,5-octafluoro-2-pentene and from about 75.9 mole % to about 96.1 mole percent 1,1,1,2,3-pentafluoropropane, wherein the vapor pressure is from about 0.59 psia to about 346 psia at a temperature of from about -40° C. to about 140° C.

4. A composition consisting essentially of:
(a) E-1,1,1,4,4,5,5,5-octafluoro-2-pentene; and
(b) 1,1,1,2,3-pentafluoropropane; wherein the 1,1,1,2,3-pentafluoropropane is present in an effective amount to form an azeotrope-like combination with the E-1,1,1,4,4,5,5,5-octafluoro-2-pentene.

5. The composition of claim 4, consisting essentially of from about 1 mole % to about 99 mole % of E-1,1,1,4,4,5,5,5-octafluoro-2-pentene and from about 99 mole % to about 1 mole % 1,1,1,2,3-pentafluoropropane.

6. The composition of claim 4, consisting essentially of from about 1 mole % to about 99 mole % of to about 99 mole % of E-1,1,1,4,4,5,5,5-octafluoro-2-pentene and from about 99 mole % to about 1 mole % 1,1,1,2,3-pentafluoropropane, at a temperature of from about -40° C. to about 120° C.

7. A composition consisting essentially of:
(a) E-1-chloro-2,3,3,3-tetrafluoropropene; and
(b) 1,1,1,2,3-pentafluoropropane; wherein the 1,1,1,2,3-pentafluoropropane is present in an effective amount to form an azeotropic combination with the E-1-chloro-2,3,3,3-tetrafluoropropene.

8. The composition of claim 7, consisting essentially of from about 65.6 mole % to about 86.7 mole % of E-1-chloro-2,3,3,3-tetrafluoropropene, and from about 13.3 mole % to about 34.4 mole % 1,1,1,2,3-pentafluoropropane.

9. The composition of claim 7, consisting essentially of from about 65.6 mole % to about 86.7 mole % of E-1-chloro-2,3,3,3-tetrafluoropropene, and from about 13.3 mole % to about 34.4 mole % 1,1,1,2,3-pentafluoropropane, wherein the vapor pressure is from about 0.98 psia to about 333 psia at a temperature of from about -40° C. to about 130° C.

10. A composition consisting essentially of: (a) E-1-chloro-2,3,3,3-tetrafluoropropene; and (b) 1,1,1,2,3-pentafluoropropane; wherein the 1,1,1,2,3-pentafluoropropane is present in an effective amount to form an azeotrope-like combination with the E-1-chloro-2,3,3,3-tetrafluoropropene.

11. The composition of claim 10, consisting essentially of from about 1 mole % to about 99 mole % of E-1-chloro-2,3,3,3-tetrafluoropropene and from about 99 mole % to about 1 mole % of 1,1,1,2,3-pentafluoropropane.

12. The composition of claim 10, consisting essentially of from about 1 mole % to about 99 mole % of E-1-chloro-2,3,3,3-tetrafluoropropene and from about 99 mole % to about 1 mole % of 1,1,1,2,3-pentafluoropropane, at a temperature of from about -40° C. to about 120° C.

13. A composition consisting essentially of:
(a) Z-1,1,1,4,4,4-hexafluoro-2-butene; and

(b) E-1-chloro-2,3,3,3-tetrafluoropropene; wherein the E-1-chloro-2,3,3,3-tetrafluoropropene is present in an effective amount to form an azeotrope-like combination with the Z-1,1,1,4,4,4-hexafluoro-2-butene.

14. The composition of claim 13, consisting essentially of from about 1 mole % to about 99 mole % of Z-1,1,1,4,4,4-hexafluoro-2-butene and from about 99 mole % to 1 mole % of E-1-chloro-2,3,3,3-tetrafluoropropene.

15. The composition of claim 13, consisting essentially of from about 1 mole % to about 99 mole % of Z-1,1,1,4,4,4-hexafluoro-2-butene and from about 99 mole % to 1 mole % of E-1-chloro-2,3,3,3-tetrafluoropropene, at a temperature of from about -40° C. to about 140° C.