CLAIMS

1. A composition consisting essentially of:
   (a) Z-1,1,1,4,4,4-hexafluoro-2-butene; and
   (b) pentane; wherein the pentane is present in an effective amount to form an azeotropic combination with the Z-1,1,1,4,4,4-hexafluoro-2-butene.
2. The azeotropic composition of claim 1 consisting essentially of from about 48.2 mole percent to about 58.7 mole percent Z-1,1,1,4,4,4-hexafluoro-2-butene and from about 51.8 mole percent to about 41.3 mole percent pentane, which has boiling point temperature of from about -20 °C to about 120 °C at a pressure of from about 2.2 psia (15 kPa) to about 182 psia (1250 kPa).
3. A composition consisting essentially of:
   (a) Z-1,1,1,4,4,4-hexafluoro-2-butene; and
   (b) pentane; wherein the pentane is present in an effective amount to form an azeotrope-like combination with the Z-1,1,1,4,4,4-hexafluoro-2-butene.
4. The azeotrope-like composition of claim 3 consisting essentially of from 45 to 99 weight percent Z-1,1,1,4,4,4-hexafluoro-2-butene and from 55 to 1 weight percent pentane, characterized by: at a temperature of from -40 °C to 120 °C, said composition having a difference in dew point pressure and bubble point pressure of less than or equal to 5 percent based upon the bubble point pressure.
5. 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 consists essentially of Z-1,1,1,4,4,4-hexafluoro-2-butene and pentane.
6. 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 consists essentially of Z-1,1,1,4,4,4-hexafluoro-2-butene and pentane.

7. A process comprising using an azeotropic or azeotrope-like composition as a solvent, wherein said azeotropic or azeotrope-like composition consists essentially of Z-1,1,1,4,4,4-hexafluoro-2-butene and pentane.
8. 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 consists essentially of Z-1,1,1,4,4,4-hexafluoro-2-butene and pentane.
9. A process comprising using an azeotropic or azeotrope-like composition as a heat transfer media, wherein said azeotropic or azeotrope-like composition consists essentially of Z-1,1,1,4,4,4-hexafluoro-2-butene and pentane.
10. 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 consists essentially of Z-1,1,1,4,4,4-hexafluoro-2-butene and pentane.
11. A process comprising using an azeotropic or azeotrope-like composition as dielectrics, wherein said azeotropic or azeotrope-like composition consists essentially of Z-1,1,1,4,4,4-hexafluoro-2-butene and pentane.

CLAIMS

1. An azeotropic composition consisting essentially of:

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

(b) pentane;

wherein the pentane is present in an effective amount to form an azeotropic combination with the Z-1,1,1,4,4,4-hexafluoro-2-butene, and

wherein said composition consists essentially of from about 48.2 mole percent to about 58.7 mole percent Z-1,1,1,4,4,4-hexafluoro-2-butene and from about 51.8 mole percent to about 41.3 mole percent pentane, which has boiling point temperature of from about -20 °C to about 120 °C at a pressure of from about 2.2 psia (15 kPa) to about 182 psia (1250 kPa).

2. An azeotrope-like composition consisting essentially of:

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

(b) pentane;

wherein the pentane is present in an effective amount to form an azeotrope-like combination with the Z-1,1,1,4,4,4-hexafluoro-2-butene, and

wherein said azeotrope-like composition consists essentially of from 45 to 99 weight percent Z-1,1,1,4,4,4-hexafluoro-2-butene and from 55 to 1 weight percent pentane, and characterized by: at a temperature of from -40 °C to 120 °C, said composition having a difference in dew point pressure and bubble point pressure of less than or equal to 5 percent based upon the bubble point pressure.