

2010/2011 CHM 332 – NON AQUEOUS SOLVENTS

PART A

CLASSIFICATION AND GENERAL CHARACTERISTICS OF SOLVENTS

- Types of liquids that serve as solvents

PROPERTIES OF SOLVENTS

Physical Properties

- Boiling point and Melting point range of solvents.
- Vapour pressure
- The solubility parameter
- The cohesive energy density
- The viscosity of solvents
- The relative permittivity ϵ_r
- The refractive index n_D

Chemical Properties

- Acidity and basicity of solvents
- Bronsted acid – base and Lewis acid – base concept
- donor number (DN) and acceptor number (AN)

CLASSIFICATION OF SOLVENTS

- Amphiprotic solvents
- Aprotic solvents
- Dipolar aprotic solvents
- Inert solvents

EFFECT OF SOLVENTS ON CHEMICAL REACTIONS

- Acid – Base Properties of Solvents and the Characteristic of Reactions