Lewis Structure Review

**Additional Questions Asked:**

1. Structure
   1. VSEPR shape
   2. Bond angle
      1. Same plane
   3. Polarity
   4. Formal Charge
   5. Hybridization
   6. Identify the hydrogen atom that most readily reacts with a base.
2. IMF
   1. Which IMF are present?
      1. Which IMF explains differences in boiling?
      2. Which would be more soluble in water?
   2. Comparisons
      1. Highest Boiling Point
      2. Highest Equilibrium Vapor Pressure
      3. % Ionization

**Structure List from Exams 2019-2024**

|  |  |  |
| --- | --- | --- |
| **Name, Formula** | **Lewis Dot Structure** | **Additional Questions** |
| Butanal, C4H8O |  | 2bi. |
| Pentane, C5H12 |  | 2bi. |
| Propanoic acid, C3H6O2 |  |  |
| Methanol, CH3OH |  |  |
| Bromine monofluoride, BrF |  |  |
| Carbon disulfide, CS2 |  |  |
| Boron trifluoride, BF3 |  |  |
| Ethanol, C₂H₆O |  |  |
| Ethane, C2H6 |  |  |
| Propanol, C3H8O |  |  |
| Dimethyl ether, CH3OCH3 |  |  |
| Sulfur trioxide, SO3 |  |  |
| Diaminomethanal, H2NCONH2 |  |  |
| X-CH2COOH, where X is a halogen |  |  |
| Glycinium, C2H6NO2+ |  |  |
| NH2CH2COO- Na+ |  |  |
| Dichloroethene, C2H2Cl2 |  |  |
| Formic acid, CHOOH |  |  |
| Carbon monoxide, CO |  |  |
| Chloramine, NH2Cl |  |  |
| Nitrogen trichloride, NCl3 |  |  |
| Oxalate ion, C2O4-2 |  |  |
| Aluminum chloride, AlCl3 |  |  |
| Lactic acid, C3H6O3 |  |  |
| Nitrogen dioxide, NO2 |  |  |
| Nitronium ion, NO2+ |  |  |