

Abbreviated pKa Table - Adapted from Evans

| Inorganic Acids | pKa (in water) | Amines | pKa (in DMSO) | Carbonyls | pKa (in DMSO) |
|------------------------------------|----------------|---|--|--------------------------|---|
| H ₂ O | 15.7 | | 36 (in THF) | | R = H: 26.5 R = Ph: 19.8 R = COCH ₃ : 13.3 R = SO ₂ Ph: 15.1 |
| HCl | -8.0 | | | | |
| HF | 3.2 | | 30.6 | | |
| Alcohols | pKa (in water) | | | | |
| MeOH | 15.5 | | 25.5 | | 24.4 |
| <i>t</i> -BuOH | 17 | | 14.7 | | 30.3 |
| CF ₃ CH ₂ OH | 12.5 | | | | 15.7 |
| MeOOH | 11.5 | Hydrocarbons & Ethers | pKa (in DMSO) | | 14.2 |
| | 10.0 | CH ₄ | 56 | | 18.2 |
| | 7.1 | H ₂ | ~ 36 | | |
| | 10.2 | | 43 | Sulfoxides & Sulfones | pKa (in DMSO) |
| Carboxylic Acids | pKa (in water) | | 49 | | R = H: 33 R = Ph: 27.2 |
| | 4.8 | Phosphines | pKa (in DMSO) | | R = H: 29.0 R = Ph: 23.4 |
| | 2.7 | Ph ₃ P ⁺ -CH ₃ | 22.4 | | 16.3 |
| | -0.25 | | R = Ph: 27.6 R = CN: 16.4 R = CO ₂ Et: 18.6 | | |
| | 4.2 | Ph ₂ P-CH ₂ -PPh ₂ | 29.9 | Nitriles | pKa (in DMSO) |
| | -2.6 | Nitro | pKa (in DMSO) | NC-CH ₂ -R | R = H: 31.3 R = Ph: 21.9 |
| | -14 | O ₂ N-CH ₂ -R | R = H: 17.2 R = Ph: 12.2 | Sulfides | pKa (in DMSO) |
| | | | | PhS-CH ₂ -SPh | 30.8 |
| | | | | | 30.7 |