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### Kinetics of Hydrolysis of Di-2,3-dichloroaniline Phosphate in Buffer Media

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**Abstract:**In present investigation, kinetic study of hydrolysis of di-2,3-dichloroaniline phosphate has been carried out in pH range from 0.00 to 7.49 in 30% dioxane-water medium at 80°C ( $\pm 0.5$ ). The pH log rate profile shows rate maximum at pH 4.11. Neutral and mononegative species have been found to be reactive in the range of pH 0.00 to 2.21 and only mononegative species in the range of pH 2.21 to 7.49. The theoretical rates determined from Debye Huckel equation have been found in close agreement with the experimental rates. Molecularity and Bond fission have been discussed in terms of isokinetic relationship. Probable reaction mechanism has been proposed for the hydrolysis of di-ester *via* its neutral and mononegative species.

**Keywords:** Hydrolysis, Di-2,3-dichloroaniline phosphate, Neutral and Mononegative species, P-N bond fission, Bimolecularity.

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