

## **Influence of aluminum salts composition on their coagulation efficiency**

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Relative basicity of a coagulant is defined as the ratio of aluminum atoms number in the simplest coagulant formula to the quantity of hydroxyl group multiplied by aluminum valency. Basicity was found to determine coagulants behavior at different temperatures (2; 7; 20; 30; 40 °C). Coagulants with the same relative basicity demonstrated similar results during coagulation process. At low temperatures about 2; 7 °C coagulants with a basicity of 67 % (the simplest formula is  $\text{Al}(\text{OH})_2\text{Cl}$ ) were the most efficient. At temperatures in the range of 20–30 °C coagulants with high basicity of 80–83 % ( $\text{Al}_2(\text{OH})_5\text{Cl}$ ,  $\text{Al}_2(\text{OH})_5\text{Cl}$ ) demonstrated the highest efficiency during coagulation process. Thus, the relative basicity can be used to predict coagulant behavior under different conditions.