

### Effect of anti-solvent infusion rate in co-crystallization of high energy material

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One of the methods to reduce the risk of explosion of high energy materials is to produce co-crystals with selected low energy co-formers. In this study, co-crystallization of high energy materials and selected co-formers was carried out using anti-solvents. Before the crystallization, solubilities of two raw material were investigated to select solvent and anti-solvent. The solvent was selected as Ethyl Acetate and anti-solvent as n-heptane. Anti-solvent was added to the solution at room temperature at a constant rate to proceed with crystallization. The anti-solvent infusion rate was 0.1 0.2 and 0.5g/min. And the influence of the anti-solvent feeding rate was confirmed. The change of induction time was confirmed according to the anti-solvent rate under the same condition. It was confirmed that the supersaturation was reduced by the faster induction time. In addition, using the microscopy, changes in crystal shape and size with induction time and supersaturation were observed.