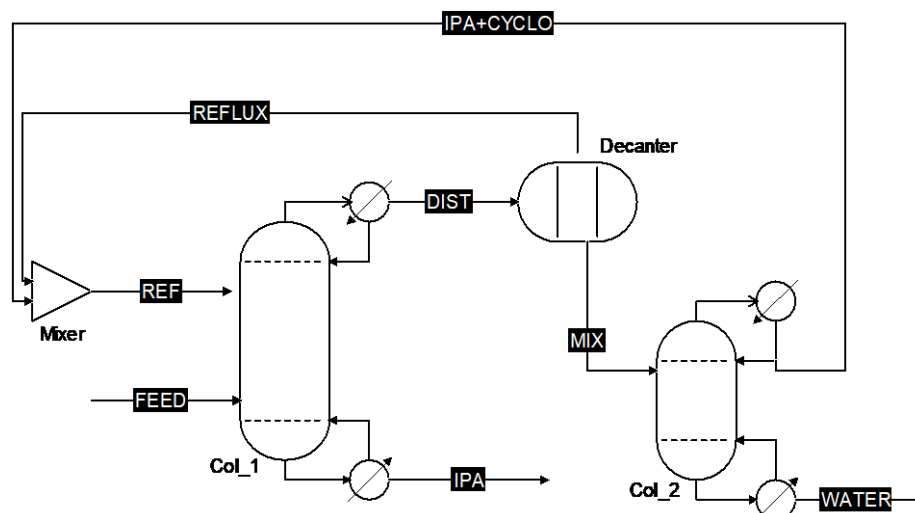


## Description - IPA\_WATER Tertiary Recovery System.

### Process Flow Diagram:



### Process Description:

For separation of IPA water the simulation, modeling and optimization were performed to obtain ultra-pure IPA from the mixture of IPA and water using cyclohexane (CH) as entrainer. By adding cyclohexane to the IPA-water mixture, forms a ternary heterogeneous azeotrope of IPA-water-CH which is lower than any other binary azeotropic temperatures there by obtaining nearly pure IPA as a bottom product of the azeotropic distillation column.

### Operating Condition:

Feed Rate Flow: 350 Kg/Hr.

Pressure: Column is operating under atmospheric pressure.

Temperature: 65.89°C- 82.09°C.

Column Internal: Structured packing for the column.

Design purity: 99.6% (Wt).

### Experience:

S Cube has supplied separating systems involving azeotropic distillation. IPA-Water is typical system involving IPA-Water azeotrope. The design involves prediction of azeotrope of IPA-Water.