

SiYPro™ Case Study

Butadiene Solvent Purification Section



The chemistry of results™

Situation

A European producer of butadiene was experiencing unstable operations in their solvent, degassing section. The unit, built to a BASF design, required annual maintenance on the lower section of the acetylene washer column.

Approach

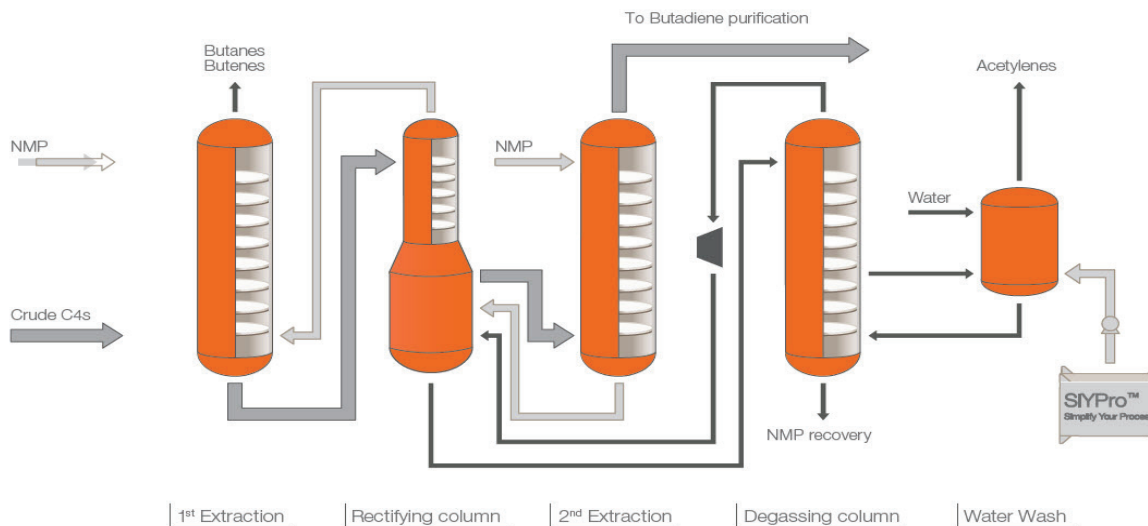
This section of the butadiene plant exhibited a wide range of different fouling mechanisms. The SiYPro™ team worked with the customer to evaluate to see what mechanisms contributed most to the fouling.

SiYPro™ Program

Based on collaboration with the customer, the decision was made to use SiYPro™ E640. It has a proven track record of strongly inhibiting the carbon and oxygen-centered free radical polymerization that was the source of the fouling. The additive was carefully delivered to the bottom trays of the washer to maximize the beneficial effect. A dosage of 40 ppm, based on butadiene product, was found to be most effective.

Results

After the application of SiYPro™ E640, the plant observed a significant performance improvement in the degasser section. Since starting the program, the washing column has required no maintenance between turnarounds, giving a five-fold improvement in performance.



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