

CASE STUDY:

Synthesis of aliphatic alkyl halide for pharmaceutical company from Germany

Goal

- Client turned to us in February 2016 with request to design route and synthesis of aliphatic alkyl halide with purity >95% by NMR.
- Quotation with price and delivery time was performed for 2 days
- The order was received in February 2016 for the synthesis of 25g with the required purity >95%

Actions

- The synthesis route and optimal conditions were developed.
- The synthesis was performed at low temperatures (-40C) and in three stages.
- A well-chosen conditions allowed to obtain the product with a high yield of ~70%.
- The purity was confirmed by NMR and LC/MS and met all the requirements of the customer.

Outcome

- In November 2016 ordered amount was scaled up to 100g. Optimization of the purification stage allowed to increase the product yield up to 88% and target high purity up to 98.5% by NMR and LC/MS
- During the period 2018-2020 Otavachemicals supplied more than 14 Kg (3Kg to 6 KG batches) of the mentioned product.
- Otavachemicals continues to successfully synthesize this product and supply to the customer.

