

## Custom Chemical Synthesis profile

- Strong in Custom chemical projects between 100 kg and 100 tonnes
- Medium-sized (100 staff), personal, and flexible
- Quick scaling up from R&D to Commercial
- Full cGMP production, FDA inspected since 1976
- More than 100 years reliability in APIs and Fine chemicals
- Family owned and fully independent

### Selected equipment

cGMP Pilot plant (10-1000 kg).

Glass-lined and stainless steel reactors (1-8 m<sup>3</sup>).

Fractionating installations (3-4 m<sup>3</sup>, min. pressure 5 Torr, max. bottom temperature 170 °C), suitable for solidifying liquids.

Spray dryer (25 kg/hr). Stainless steel and Hastelloy centrifuges.

### Services

cGMP Quality Assurance support

DMF and Analytical method development

### Process experience

Additions with Isocyanates or Sodium cyanide

Aminations with Ammonia

Condensations: Aldol, Claisen and Knoevenagel

Derivatisation reactions: Esterification to n-alkyl esters and Pinner reaction

Eliminations with Hydrazine

Oxidations with Hydrogen peroxide or Potassium permanganate

Synthesis of heterocycles: Phthalimides, pyrimidines, pyrrolidines and imidazolidines