



## Chemical Reaction Capabilities

### Chemical Reaction Experience & Capabilities

In addition to the classic methods of organic synthesis, Olon USA's process chemists and engineers have extensive experience with modern complex multi-step organic processing utilized for the production of innovative pharmaceuticals and specialty chemicals. A representative list of chemistries and reagents that have been successfully scaled and operated in our kilo lab and plant facilities is given below.

- Cross-Coupling Reactions – Suzuki, Heck, Sonogashira, Negishi, Buchwald-Hartwig, Ullman
- Mitsunobu Reaction
- Chiral Synthesis
- Homogeneous Chiral Catalysis
- Chiral Resolution – classical, enzymatic, auxiliaries
- Hydrogenation – supported and homogeneous catalysts. Pressure to 450 psig
- Asymmetric Hydrogenation – precious metal complex catalysts
- Organic Azide Reactions
- Propoxylation
- Polymerizations – solution-based
- Grignard Reagents – Formation and reaction
- Pyrophorics – n-BuLi, t-BuLi, LiAlH<sub>4</sub>, MeLi, DiBAL-H, Vitride, Borane complexes, Raney Nickel
- Chlorination – Cl<sub>2</sub>, SOCl<sub>2</sub>, PCl<sub>3</sub>, PCl<sub>5</sub>, POCl<sub>3</sub>
- Brominations – Br, PBr<sub>3</sub>, NBS
- Production scale chromatographic separations

### Olon USA: Your research partner of choice

Olon USA, a contract development organization, provides science-based services to the pharmaceutical, biotech, and specialty chemical industries for the development and commercialization of new innovative products. Olon USA's 160,000 ft<sup>2</sup> complex is located on a 25-acre site in Concord, Ohio. The facility is equipped with a full complement of well-maintained instrumentation and processing equipment operated in rigorous regulatory compliance to the highest quality standards.

