



INNOVASSYNTH TECHNOLOGIES(I) LTD

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email: ravi@innovassynth.com

Old Mumbai-Pune Road, Khopoli, Raigad, Maharashtra 410203, India

AUSTIN

MARKETING A WORLD OF FINE CHEMICALS™



Austin Chemical Company, Inc.

Contact us to discuss Tel: 847-520-9600

info@austinchemical.com • Fax: 847-520-9160

1565 Barclay Blvd., Buffalo Grove, IL 60089

JV and CMO Potential

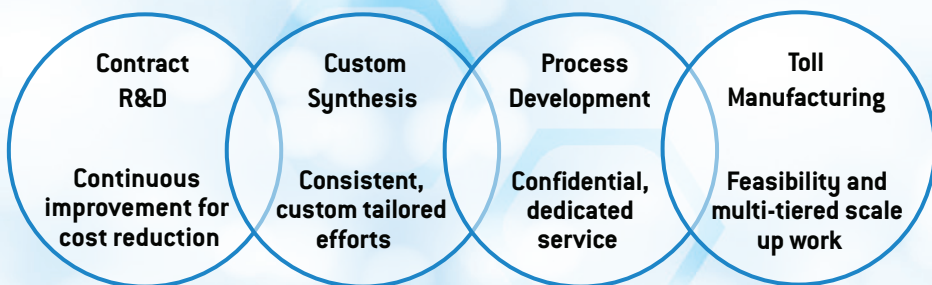
- Joint development efforts
- Project specific capacity of ~ 200 KL
- Available expansion for dedicated facilities
- Civil construction and reactor bay accommodation
- Shared costs
- Commitment to customer satisfaction
- Manufacturer of value added and technology intensive products

India
[Alternate to China]

Quality & Reliability

- Alternative overseas production
- Global partnerships
- Privately held
- Committed laboratory spaces
- ISO 9001 certified
- FDA and EDQM inspections

Development and Manufacturing Solutions



Located outside Mumbai

Metalloenes and e-Donors

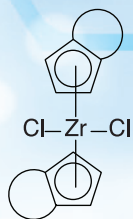
- Custom packing tailored to user batch size
- Inert shipping and packing
- Dedicated labs
- Made to order on customer requirements

- 65 Acre (260,000 m²) campus
- 5 R&D labs, 3 Kilo labs
- 17 analytical chemists
- 67 synthetic chemists

Specialty Products and Technologies

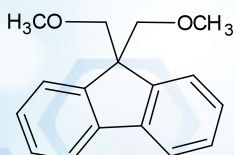
- Air & Moisture sensitive operations
- Pyrophoric material handling

Metalloenes



Kilo to ton historical production

9,9'-bis (methoxymethyl) fluorene



100 Kg batches

Grignard Grignard reaction safety system of ~100s of Kg of Mg	Friedel Crafts Acidic effluent treatment	Grignard Cost competitive development
Cyanation Complete, safe facility	Hydrogenation Catalytic; 30 bar, 150°C	Organometallics 400 Kg nBuLi capacity
Carbohydrate Chemistry Developed 4 sugar monomers; 50 Kg production	Halogenation Br ₂ (l) and Cl ₂ (g) handling ~1 MT	



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Nucleosides

- In house development
- Synthesis & Scaleup
- Specialty development from respective sugar
- In house analysis, exclusive of NMR
- Supplemental purity on request

	Adenosine	Thymidine & Uridine	Guanosine	Cytidine
Deoxy MFG Capacity: 3 M.T per year				
Ribo MFG Capacity: 2 M.T per year				
Locked Nucleic Acid (LNA) & cEt MFG Capacity: 2 M.T per year				
UNA				
Morpholino MFG Capacity: 0.5 M. T per annum.				

- Protection and deprotection
- Transformation of U to C via triazolation
- 5'-Acylation
- Selective 2'-O alkylations
- Fluorination and phosphorylation
- Azidation and catalytic reduction to amino derivative

General Plant

- Reactors - Glass Lined and Stainless Steel up to 7.0 KL
- Centrifuge 60"
- Nutch Filter, milling machine (50 Kg/Hr), rotocone dryer
- Autoclave/hydrogenation reactor (1.5 KL)
- Scrubber Units
- Liquid N2 Tank (30 KL) for operations at -40°C
- Fractional Distillation via Packed Column
- Effluent treatment plant with excess capacity

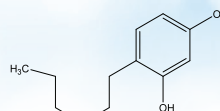
Analytical Capabilities

- Analytical method development, validation, and transfer
- Impurity Profile
- Microbiological Testing
- Stability Testing
- HPLC
- GC
- FT-IR
- LC-MS
- UPHPLC

Pharma Intermediates

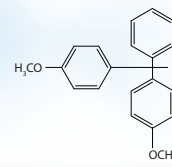
- Rigorous QC
- Extensive Documentation
- Process Optimization & Scaleup
- Exclusive manufacturing

4-Hexyl Resorcinol



Antiseptic, local anesthetic.
Applications in electronics and fisheries industry.

Dimethoxytrityl Chloride

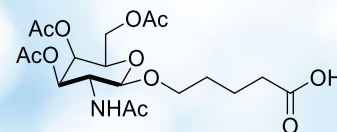


6 MT annually. Protecting group in nucleosides.

GalNAc Succinate

- Dedicated setup for manufacturing
- Design or customize
- Linear and branched
- Chain of GalNAc linker conjugates
- mg to kg
- MFG Capacity: 0.5 M. T per year

Subject to license award



Reaction Expertise

- Approval by Indian government

Fries
Rearrangement

Aromatic
Fluorination
& Sulphonation

Oxidation

Wittig-Horner

Phosphorous
Halides

Side Chain
Photochlorination

Reductions

Sustainability

- Full Water Management System
- Zero liquid discharge
- Treated water recycled for cooling towers
- STP water for land irrigation of own property