

Lacamas Laboratories



FINE CHEMICALS
MANUFACTURED IN OREGON

Company History

- **Established in 1985**
- **Founded by Dr. Allen Erickson, current President & CEO**
- **Several key products started the company**
- **Growth and expansion every year since inception**
- **Privately owned with solid financial resources (i.e., self-sufficient for Capital needs)**

Growth in 2015

- Pharma sales orders increasing >50%
- 2015 Expansions
 - New Reactor Capacity
 - New Vacuum System
 - New Dryer



Site and Facilities

4.5 Acre (1.8 Hectares) Site

3 Manufacturing Buildings

12600 ft² (1170 m²)

Office and Laboratory Facilities

4000 ft² (370 m²) Laboratory Area

3 Warehouses 19000 ft² (1760 m²)

Raw Materials

In-Process

Finished Product

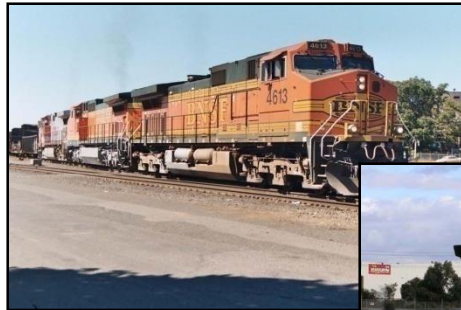


Strategic West Coast Location

Lacamas
Laboratories

Portland, Oregon has access to:

Rail



Trucking



International Airport



Deep Sea Port



Worldwide Logistics and Shipping Experience



Production Manufacturing Capabilities

- **8 Production Lines of 1000 and 2000 gallon reactors (4000 and 8000 L)**
 - **>28,000 gallons (106,000 L) GL, Hastelloy & SS reactors**
 - **Hydrogenation: 500 gallons up to 300 psi**
 - **Hastelloy C and Tantalum Overheads**
 - **Hastelloy C Centrifuges**
 - **Variety of dryers**
 - **Heating and cooling from -40 to >200°C**
 - **High capacity vacuum to <1 Torr**



Production Features

Pilot Processing Line- 50/100/200 gallon Capacity

New Continuous Flow Chemistry Process unit

Separate buildings for pharmaceuticals and fine chemicals



Distillation Capabilities

Continuous Fractional Distillation

Engineered Packing

26 Theoretical Plates

High resolution

High efficiency

High capacity

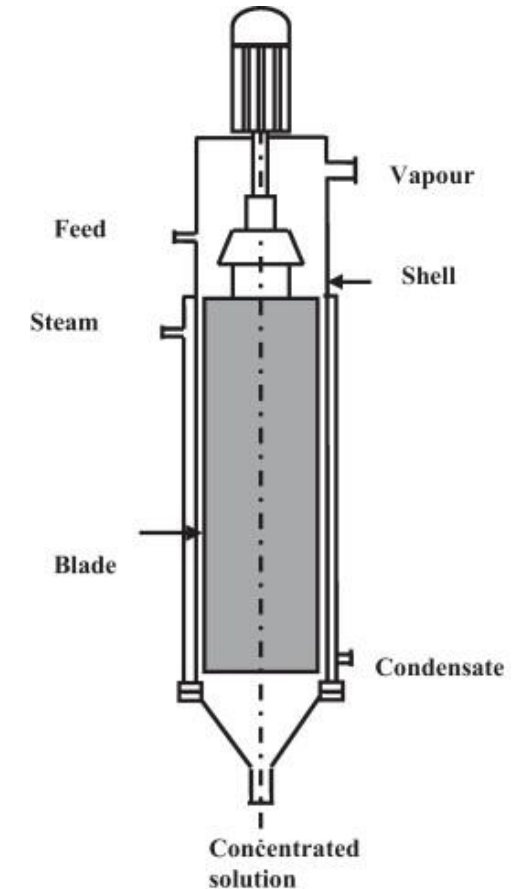
Thin Film Distillation

Thermally sensitive materials

Short contact times

High vacuum, <1 Torr

High capacity, 8 kg per Minute

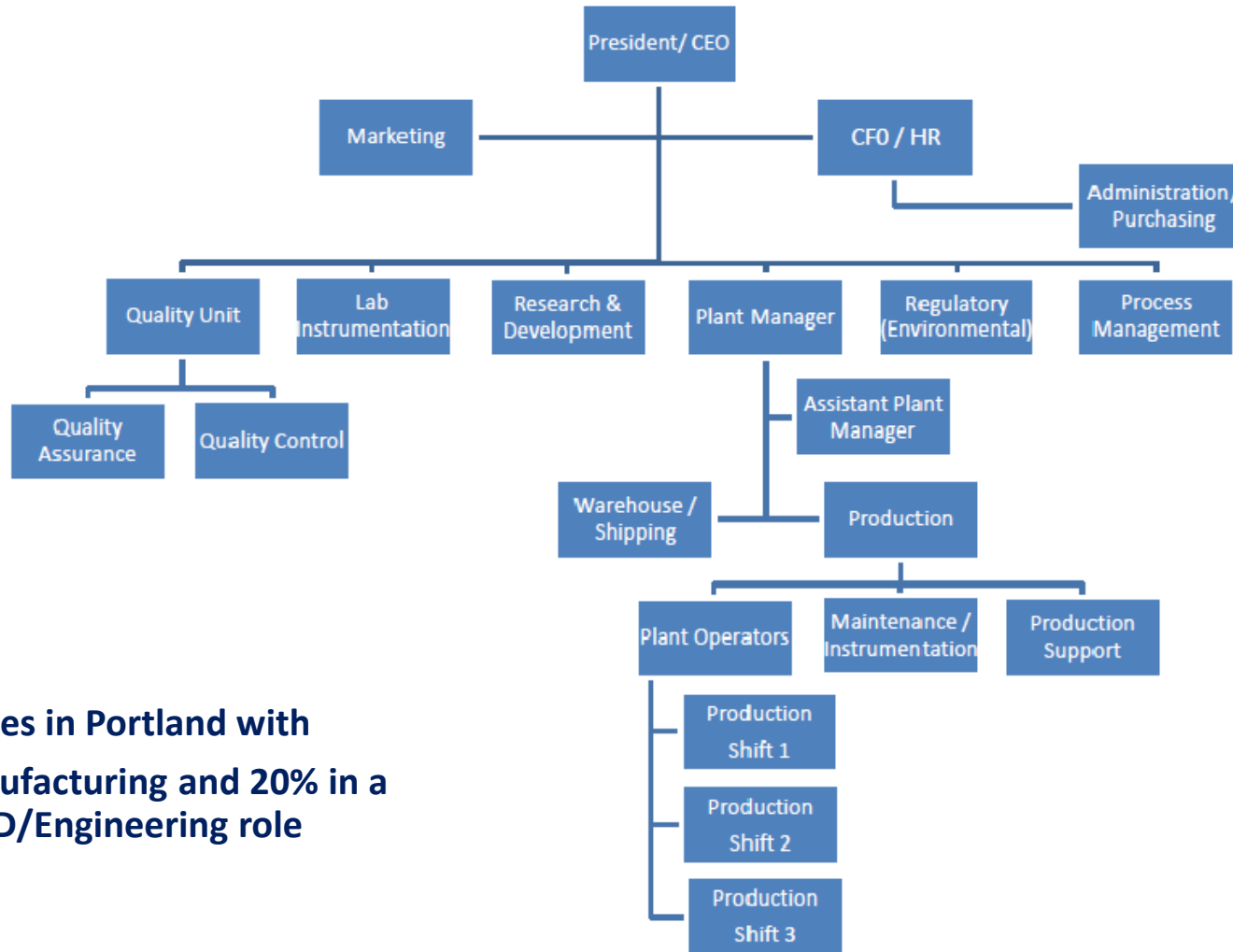


Construction and Equipment Additions in 2015

- Installed two new vacuum systems
- Installed a new dryer with capacity to 500 KG
- Purchased and installed a new hot oil system
- Added a new high purity nitrogen system
- Added 5,000 gallons of reactor capacity
- Purchased and installed new tantalum overheads for reactors
- Increased the number of scrubber columns
- Purchased and installed a major solvent recovery system

**Total investment in 2015
expansion is >\$500 K**

Organizational Chart



**50 employees in Portland with
50% in manufacturing and 20% in a
Process R&D/Engineering role**

Personnel Additions in 2015

- Increased our chemical operator staff by 20% over the past 6 months
- Hired an additional Instrument Scientist to support manufacturing
- Plans in place to add people for expanded process R&D laboratory and office space

Quality Systems

- **Lacamas maintains effective quality systems that:**
 - Meet customer requirements
 - Comply with applicable current Good Manufacturing Practices (cGMP)
 - Focus on continuous improvement

- **Quality Unit**
 - **Quality Assurance**
 - OOS/Deviation Reporting
 - CAPA Program/Internal Audits
 - Supplier Qualification
 - Change Control Program
 - Validation Program

 - **Quality Control**
 - Raw Material, Intermediate and Final Product Testing
 - Analytical Methods Development
 - Full Analytical Capabilities including NMR

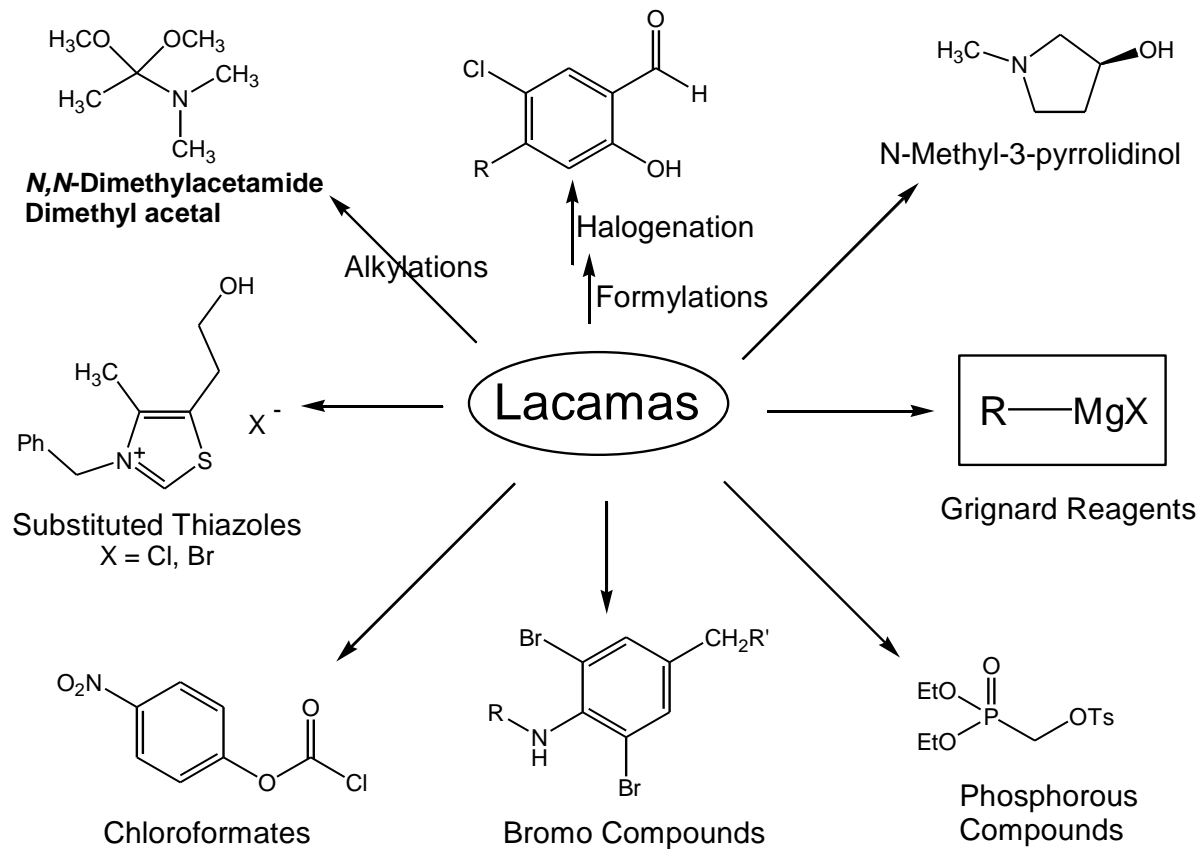


Technical Expertise

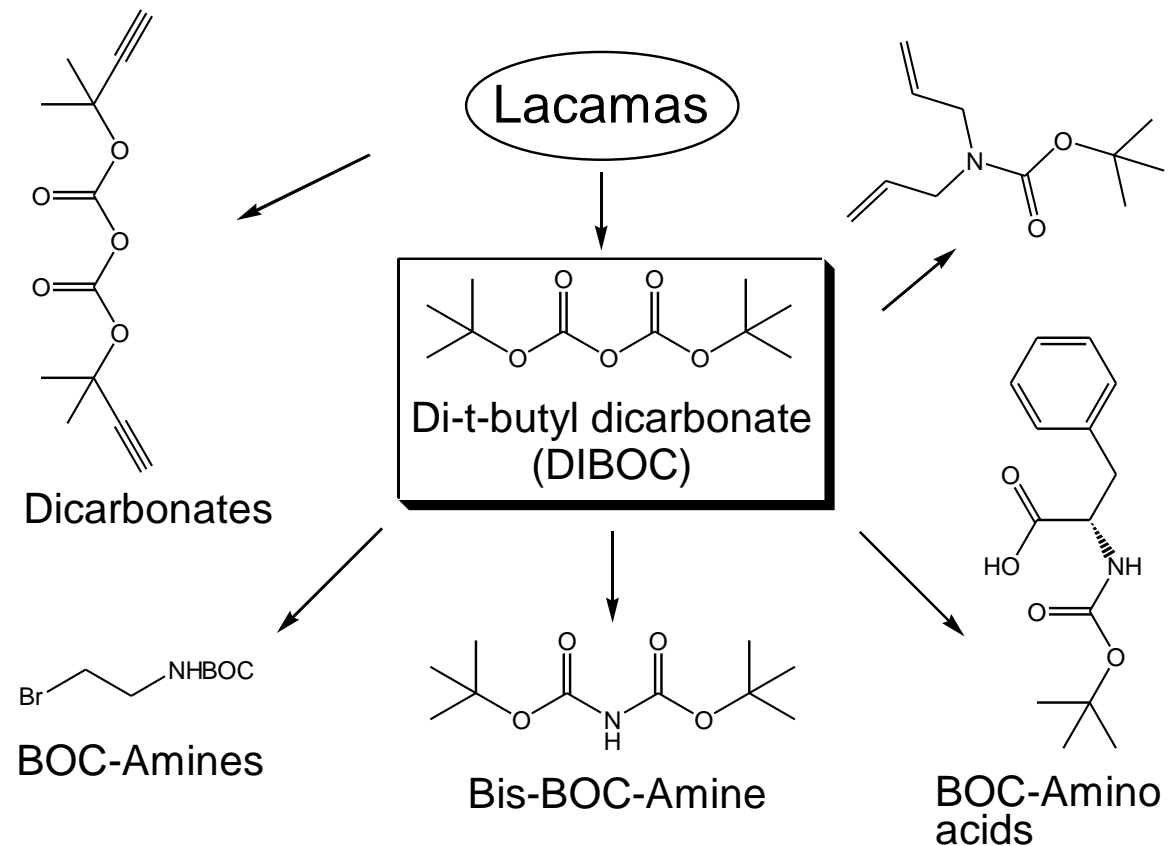
- R&D and Process Development
- Scale-up
- Engineering/Plant Design
- Plant Operations and
Production



Synthetic Strengths



Diboc and Custom BOC Derivatives



Why choose Lacamas?

- Quality Supply Chain Partner
 - 30 years of experience
 - Timely Delivery
 - International Market Experience
- Agile Manufacturing
 - Customer Focused
 - Pilot and Commercial Scale
 - Competitive Pricing



Visit Us in Online and in Portland

Phone: (503) 285-0360

www.LacamasLabs.com

Email: sales@LacamasLabs.com

Upcoming tradeshow are listed on our website