

Almabor®

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Anderson Development Company (ADC)

- We are the world's largest merchant producer of <u>Specialty Borate Esters</u> and Organoborate Derivatives
- ADC is internationally known for High Quality
 Products and World-Class Service and Support



What We Offer to You

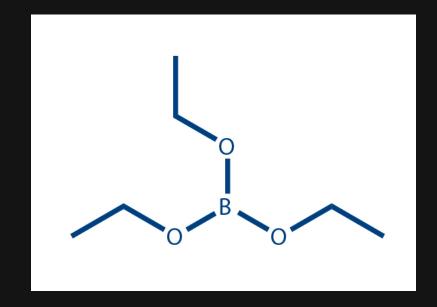
- R& D Bench Scale
- Kilo-Scale
- Pilot Plant
- Bulk Manufacturing Capabilities

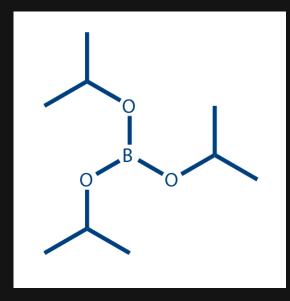
Many Almabor® products are available for Lab and Commercial use

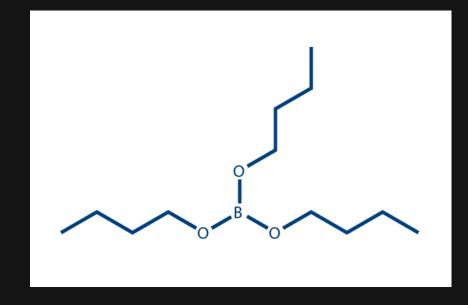
Almabor® products are in stock for immediate delivery anywhere in the world

Almabor® at ADC

- ADC has commercially offered <u>Borate Ester products</u> for over 40 years
- ADC invests in the development and commercialization of many innovative Almabor[®] products

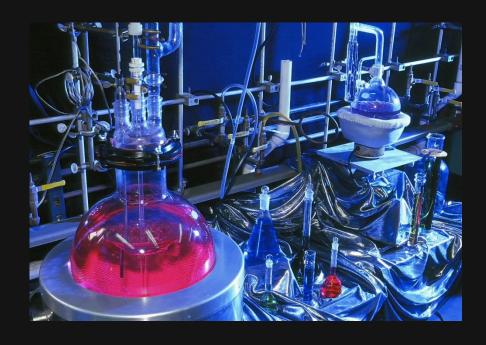






Complex Problems? We have a Solution!

- ADC has the solution to your problems
- Our facilities include:
 - Our Headquarters
 - Laboratories
 - Pilot Plant
 - 2 Manufacturing Facilities Warehousing
 - Bulk Storage Facilities



Almabor® Products

- High Purity
- Consistency
- Greater Cost Efficiency
- Improved Yields
- Milder Reaction Conditions, compared to traditional synthetic routes

ADC offers over 20 commercial Almabor® products

Need a custom organoborate? We can do that!



Alkyl & Cycloalkyl Borate Esters

Almabor® Borate Esters

Wide Range of Applications

- Precursors for boronic acid and boronic acid ester building blocks for Suzuki and Miayura couplings
- Synthesis of boranes used for selective reducing agents
- Dopants for the BPSG layer in semiconductor chips
- Synthesis of aziridines
- Adhesion promoters
- Lubricant additives to provide corrosion and anti-wear protection

Almabor® Borate Esters

Tailor Made to Meet Your Needs

- Highest purities, which allow decreased usage of expensive coreagents and allow easier workup
- Commercial and semi-works scale production in multi-ton to kilogram sized lots, with many materials stocked
- Custom packaging available
- Custom synthesis of specific unlisted or new compounds



Borate Reagents

Almabor® Borane Reagents

Excellent for Organic Synthesis

- Reduction of functional groups, including carboxylic acids, ketones, aldehydes, amides, oximes, imines and nitriles
- Hydroboration reactions with alkenes and alkynes
- Rearrangements
- Cleavage of carbon-oxygen bonds

Almabor® Borane Reagents

Advantages of Almabor® Reagents

- Extremely high purities for the highest yields
- Customization of products is available. Many products can be provided in neat form or in a variety of solvents at different concentrations
- Commercial production in kilogram to ton lots
- Materials packaged in cylinders



Boroxines

Versatile Additives for Multiple Applications

Almabor® Boroxines

Versatile Additives for Many Applications

- Metallocene co-catalysts
- Silicone additives
- Cracking catalyst additives
- Lithium ion battery additives
- Zeolite additive
- Ion conductor media

- High frequency transducers
- Epoxy resin curing agent
- Adhesion promoter/adhesive additive
- Cross-linker for flame retardant coatings/fire-stop materials
- Lubricant anti-wear additive
- Fire extinguishing media additive

Almabor™ Boroxines

Advantages of Almabor® Boroxines

- Commercial production in kilogram to multi-ton lots
- Many materials are available neat or in a variety of solvents.
- Customization of products is available



Specialty Organoborates

Almabor® Specialty Organoborates

The Functionality You Need for Many Types of Applications

- Pharmaceutical
- Electronics
- Lubrication
- Specialty additives
- Specialty chemical manufacturing

Almabor® Specialty Organoborates

Advantages of Almabor® Specialty Organoborates

- Extremely high purities for the highest performance
- Custom development of specialty materials for specific applications
- Customization of products is available, including solvents, concentrations and stabilizer packages
- Commercial production in kilogram to multi-ton lots



Anderson Development Company

Finding Solutions to Your Most Complex Problems

Our History

Anderson Development Company (ADC) was founded in 1967 by Dr. Amos Anderson, an expert in the field of Boron Chemistry. ADC's Organoboron expertise has been developed over the past 40 years as a direct result of his vision.

ADC was purchased in 1988 by Mitsui Chemicals (MCI), Tokyo. Since the acquisition of ADC by MCI, the boron business has grown significantly. ADC can either work independently or cooperatively with MCI, utilizing MCI's significant resources, depending on customer preference or requirements.

ADC serves as the business center and the technical center of expertise for Organoborate products within the Mitsui Chemicals Group.

Health & Safety

ADC strives for an accident- and injury-free workplace by identifying and eliminating hazards and providing employees the equipment, procedures and training necessary to prevent exposure to hazardous chemicals.

ADC earned Responsible Care RC14001 certification in response to our commitment to excellence in the area of health and safety.

Environmental Management

ADC aspires towards environmental preservation through world-class manufacturing and through the development of new products and technologies. The application of waste minimization principles reduces natural resource consumption and pollution.

ADC has earned ISO14001 and ISO 9001 certification in response to our commitment to excellence in the area of environmental stewardship.

Quality & Customer Satisfaction

To achieve total customer satisfaction, we will do our best to understand our customers' requirements and meet those requirements at all times.

While customer satisfaction is one of the main aspects of our management system, our commitment extends beyond customer satisfaction.

We will also strive to do everything right the first time and do our best to continuously improve.

Improving our process efficiencies and effectiveness is of primary importance to us as a business entity

Quality & Customer Satisfaction

Our quality system is the result of our experience in supplying diverse industries. We work to consider the key quality system drivers and functions from each area in order to build a system to meet the requirements of our customers, to assure the highest quality products and services, and to use best practices from each industry. Our facilities and practices have been audited and accepted by:

- Major pharmaceutical producers/innovators
- Major semiconductor manufacturers and semiconductor supply companies
- Automotive suppliers
- Fortune 100 chemical manufacturers

Quality & Customer Satisfaction

We are committed to compliance with requirements that relate to our business.

We will set and review objectives and targets to ensure continual improvement in our management system.

We will promote a spirit of openness with our key stakeholders, taking into account public and employee inputs.

This includes communicating our values to all people working for or on behalf of the organization and ensuring it is available to the public.

Contact Anderson Development



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