



Anderson Development Company



Almabor™

Tailor Made Organoborates



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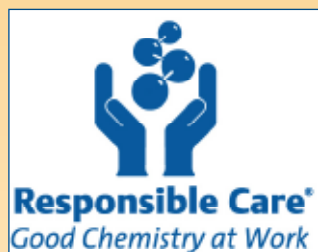
www.andersondevelopment.com

Quality

At Anderson Development Company, we are committed to enhancing the "Quality of Life" for our employees and stakeholders through the continuous improvement of performance in:

- health, safety and security
- environmental protection through pollution prevention
- customer satisfaction
- meeting regulatory requirements and other agreed upon commitments
- supporting Responsible Care®.

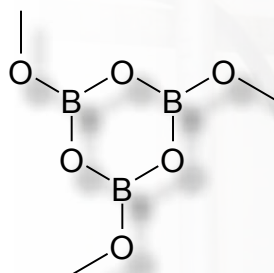
The underlying philosophy is continuous improvement of the various aspects of our integrated management system.



Almabor™

Tailor Made Organoborates

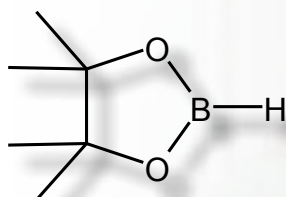
As the world's largest merchant producer of specialty borate esters and organoborate derivatives to the industry, Anderson Development Company is known globally for high-quality products combined with world-class service and support.



Anderson Development Company offers R & D bench scale, kilo-scale, pilot plant and bulk manufacturing capability at the Adrian, Michigan, site. Almabor products are available for lab and commercial use. Many Almabor products are in stock for immediate delivery anywhere in the world.

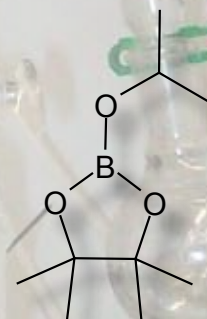
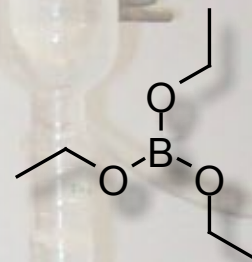
Almabor products are known for high purity and consistency, offering greater cost efficiency, improved yields and milder reaction conditions in many cases when compared to traditional synthetic routes.

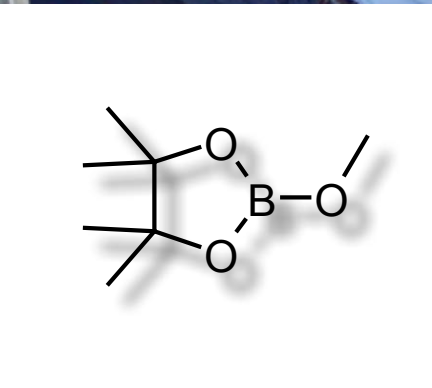
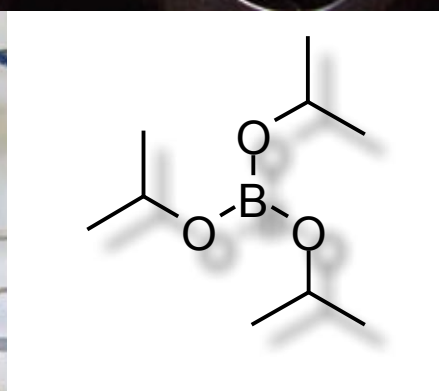
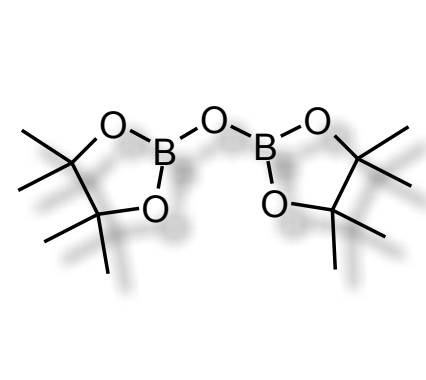
Anderson offers over 20 commercial Almabor products and has the capability to produce other custom organoborates.



Anderson has commercially offered borate ester products for over 40 years and continues to aggressively invest in the development and commercialization of many innovative new Almabor products.

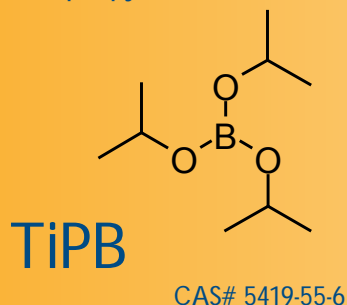
From our headquarters, laboratories, pilot plant, 2 manufacturing facilities warehousing and bulk storage facilities in Adrian, Michigan, ADC is positioned to develop and provide innovative solutions to even your most complex problems.





Alkyl & Cycloalkyl Borate Esters

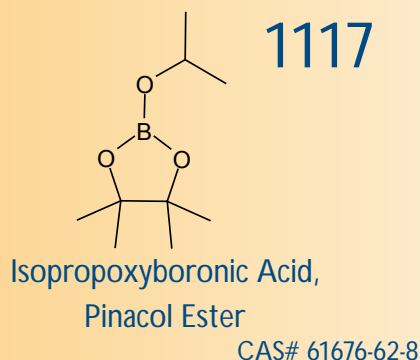
Triisopropyl Borate



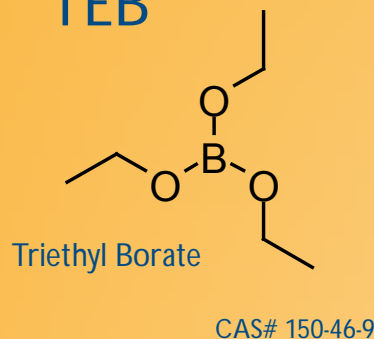
Tri-n-butyl Borate

TnBB

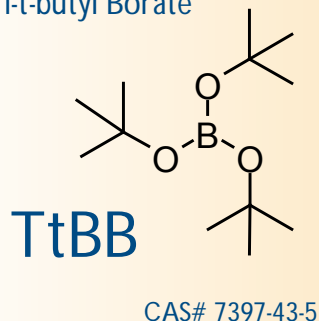
CAS# 688-74-4



TEB



Tri-t-butyl Borate



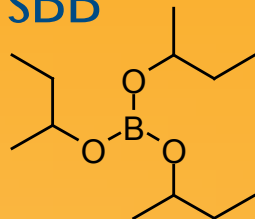
Almabor™ Borate esters provide top performance in a wide range of applications

- Precursors for boronic acid and boronic acid ester building blocks for Suzuki and Miyaura 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 are Tailor Made to meet your needs

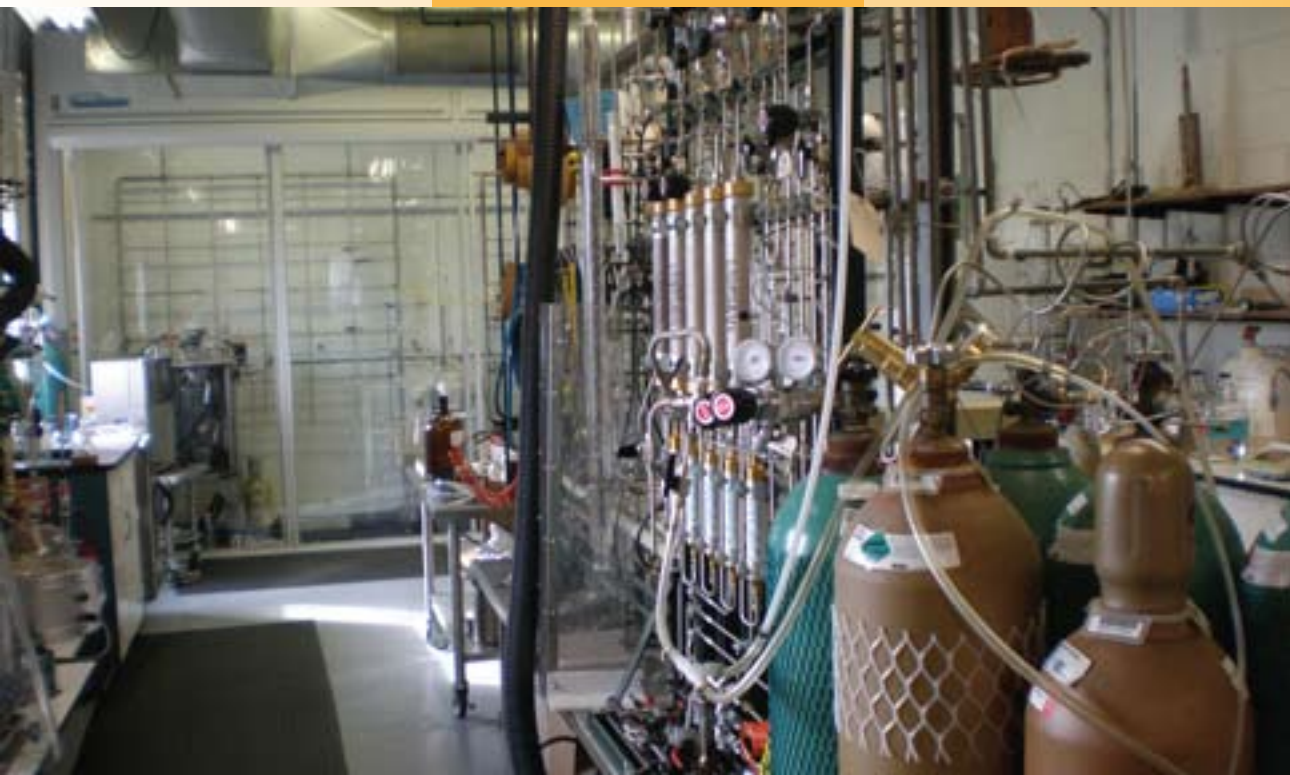
- Highest purities, which allow decreased usage of expensive co-reagents and allow easier workup
- Commercial and semi-works scale production in multi-ton to kilogram sized lots, with many materials stocked
- Custom packaging available
- Custom synthesis of specific unlisted or new compounds

TsBB

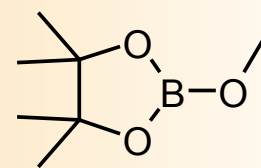


Tri-s-butyl Borate

CAS# 222238-17-1



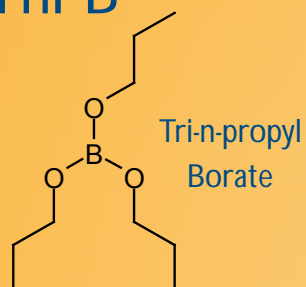
0411



Methoxyboronic Acid,
Pinacol Ester

CAS# 1195-66-0

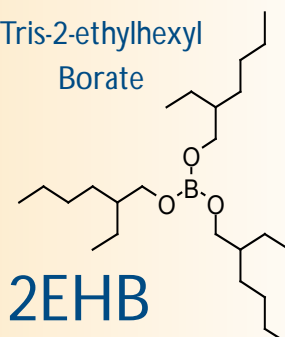
TnPB



Tri-n-propyl
Borate

CAS# 688-71-1

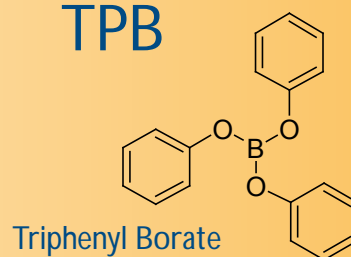
Tris-2-ethylhexyl
Borate



2EHB

CAS# 2467-13-2

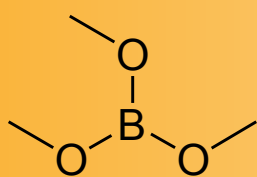
TPB



Triphenyl Borate

CAS# 1095-03-0

TMB



Trimethyl Borate

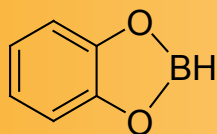
CAS# 121-43-7

Alkyl & Cycloalkyl Borate Esters

Borane Reagents



Cat B



Catechol Borane

CAS# 274-07-7

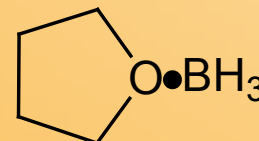
Almabor™ Boranes are excellent reagents for organic synthesis

- 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

Advantage of Almabor™ Boranes

- 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

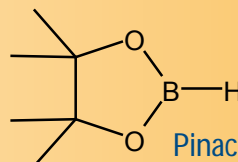
BTHF



Borane THF Complex

CAS# 14044-65-6

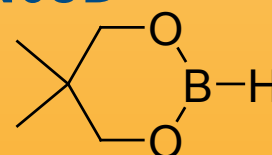
PinB



Pinacol Borane

CAS# 25015-63-8

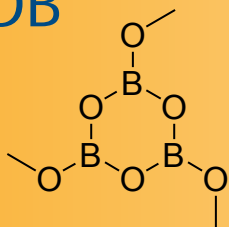
NeoB



Neopentyl Borane

CAS# 668987-38-0

TMOB



Trimethoxyboroxine

CAS# 102-24-9

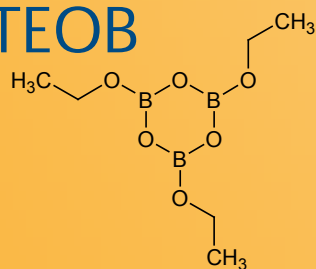
Almabor™ Boroxines are versatile additives for many applications

- 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

Advantage 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.

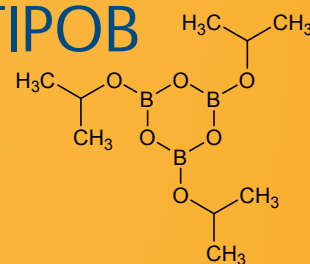
TEOB



Triethoxyboroxine

CAS# Unknown

TIPOB



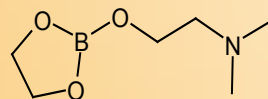
Triisopropoxyboroxine

CAS# Unknown

Boroxines

Specialty Organoborates

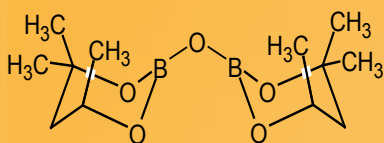
DEDMA



[2-([1,3,2]Dioxaborolan-2-yloxy)-ethyl]-dimethyl-amine

CAS# Unknown

26213

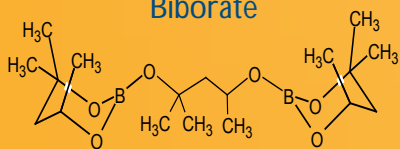


Hexyleneglycol Biborate

CAS# 14697-50-8



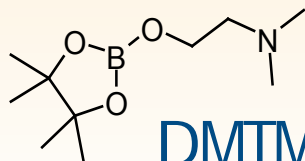
Trihexyleneglycol Biborate



THGBB

CAS# 100-89-0

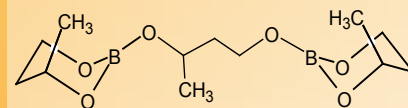
Dimethyl-[2-(4,4,5,5-tetramethyl-[1,3,2]dioxaborolan-2-yloxy)-ethyl]-amine



DMTM

CAS# 121634-82-0

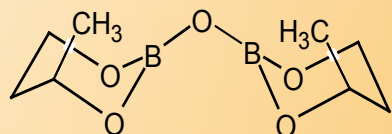
TBGBB



Tributylene glycol
Biborate

CAS# 2665-13-6

Dibutyleneglycol
Biborate



DBGBB

CAS# 26537-96-2

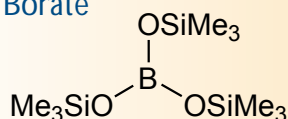
Almabor™ Specialty Organoborates provide the functionality you need for many types of applications

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

Advantage of Almabor™ Boranes

- 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

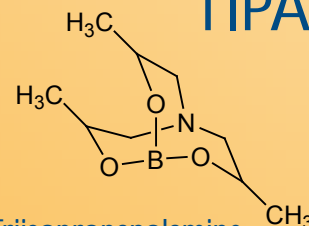
Tris-trimethylsilyl
Borate



TTMSB

CAS# 4325-85-3

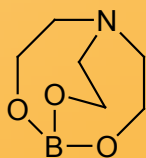
TIPAB



Triisopropanolamine
Borate

CAS# 101-00-8

Triethanolamine
Borate



TEAB

CAS# 283-56-7

Specialty Organoborates

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 RC14000 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 ISO14000 certification in response to our commitment to excellence in the area of environmental stewardship.

Quality and 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.

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

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.

