



Boulder Scientific CompanyTM

INNOVATIVE SPECIALTY CHEMICAL SOLUTIONS

SOCMA 2025
Nashville, TN

Confidential



Our Heritage



- **1950:** John Birmingham pioneered the synthesis of metallocenes at Harvard during his graduate work with Sir Geoffrey Wilkinson.
Bis(Cyclopentadienyl) Compounds of Ti, Zr, V, Nb and Ta. J. Am. Chem. Soc. **1954**, 76 (17), 4281
- **1961:** Boulder Scientific (BSC) is incorporated in Boulder, CO.
- **Continual Growth:**
 - **1979:** BSC relocates manufacturing to 10-acre parcel in Mead, CO
 - **1990's – 2000's:** Significant growth for BSC in metallocenes for polyolefin catalysts, organometallics for semiconductor and other applications
 - **2017:** BSC expands manufacturing and R&D at 2nd site in Longmont, CO
 - **2019:** Private equity firm Quad-C acquires majority ownership in BSC supporting further growth

Who We Are Today

Custom Specialty Chemicals

Advanced Catalysts

- Polyolefins Industry

Electronic Materials

- ALD and CVD Precursor

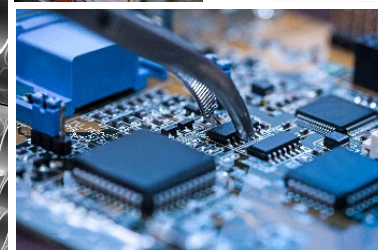
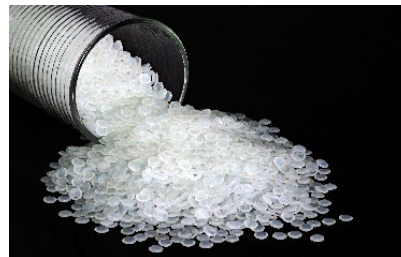
Performance Materials

- Defense and Aerospace Industry

Fine Chemicals

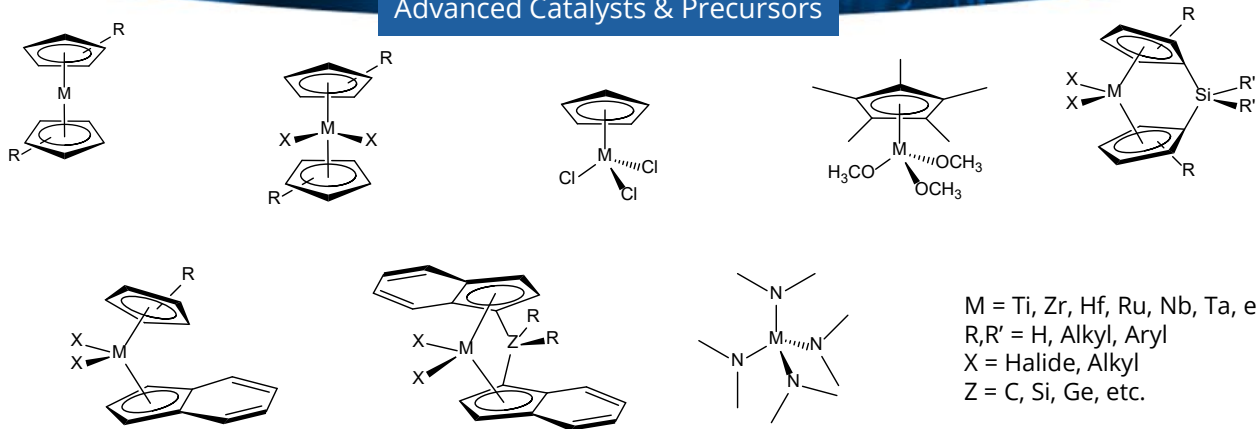
- Research and Development
- Life Sciences

- Over 50 years of experience in commercial manufacturing of organometallic compounds
- >200 full time employees and growing

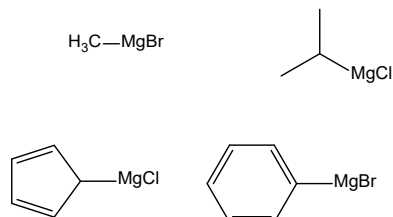


BSC Product Offerings

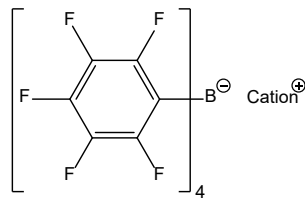
Advanced Catalysts & Precursors



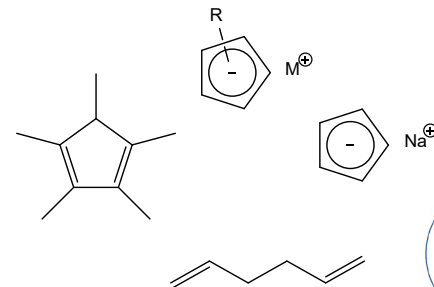
Grignard Reagents



Boron Compounds

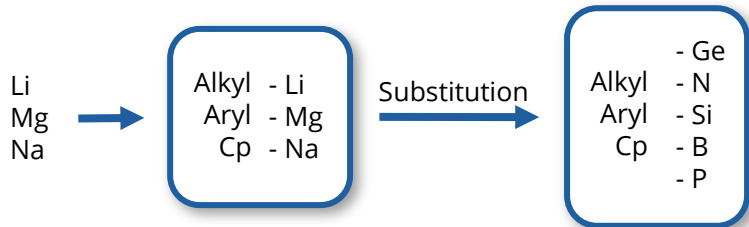


Organic Compounds



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BSC Core Capabilities

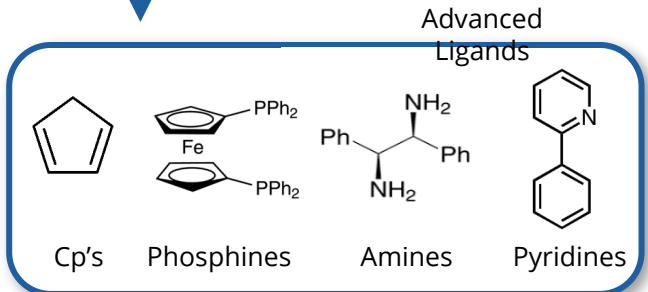


BSC Core Capabilities:

- Organic chemistry
- Pyrophoric reagents
- Commercial scale manufacturing of air/moisture sensitive compounds
- Solid Supported Catalysts

Synthetic Organic Chemistry

Solutions for Your Custom Chemical Needs

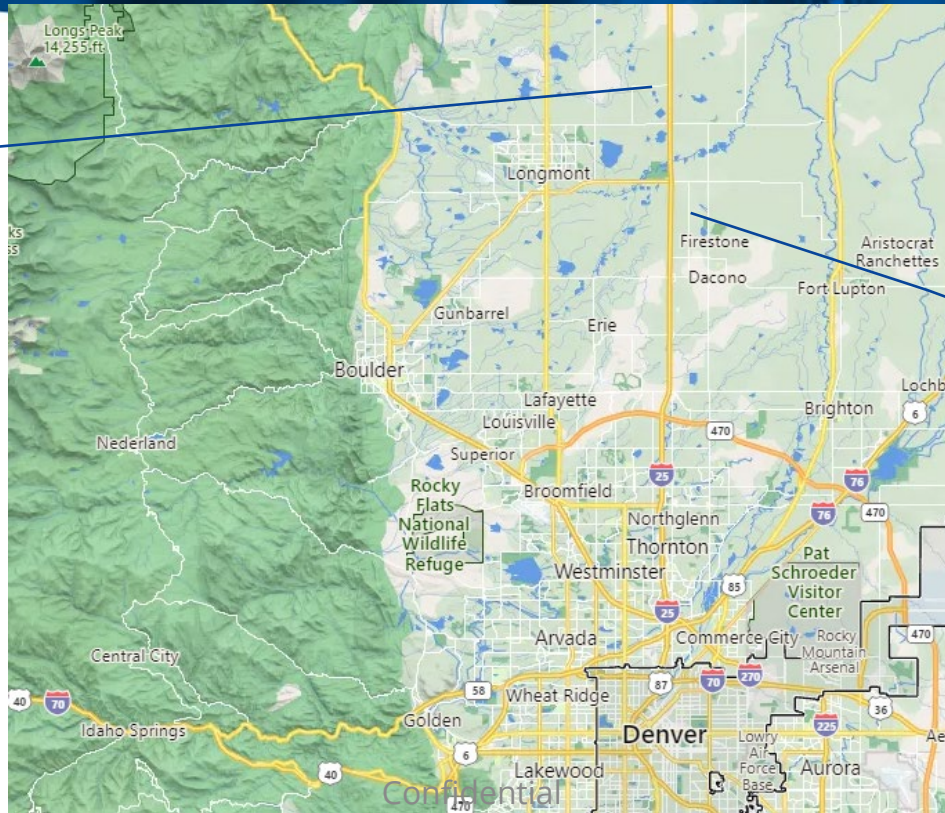


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Facilities in Northern Colorado

Mead

R&D, Pilot Plant,
Manufacturing,
Analytical



Longmont (HQ)

R&D, Manufacturing,
Corporate Office



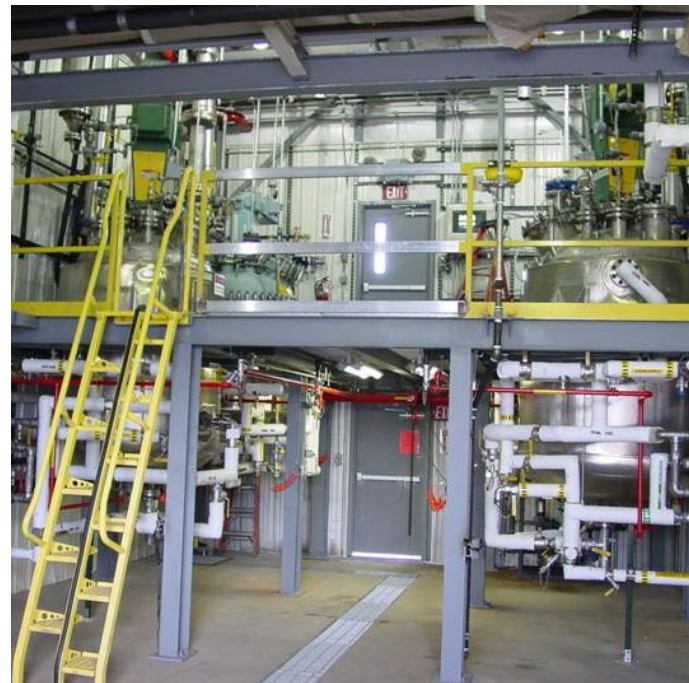
Facilities in Northern Colorado



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Production Capabilities

- Reactors of various sizes and materials of construction (lab to commercial scale)
- Variety of Filtration Technology & Centrifuges
- Commercial scale distillation
- Handling of air/moisture sensitive materials at commercial scale
 - Liquid and solid packaging
 - Pyrophoric materials



Longmont Cell 3 Expansion



- Started-up 4Q 2024
- Operational and currently running
- Multi-purpose
 - Mix of mid- and large-scale reactor trains
 - Full automation
 - Supports growing demand for products across all of BSC's markets

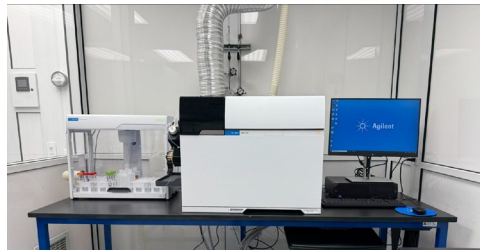
R&D / Analytical Laboratories



Extensive Analytical Instrumentation & Process Safety Equipment

- NMR
- GC / GC-MS
- HPLC
- FTIR
- UV/VIS
- Karl Fischer
- ICP-OES / ICP-MS
- Particle Size Analyzer
- Headspace Analyzer
- Reaction Calorimeter
- DSC & TGA

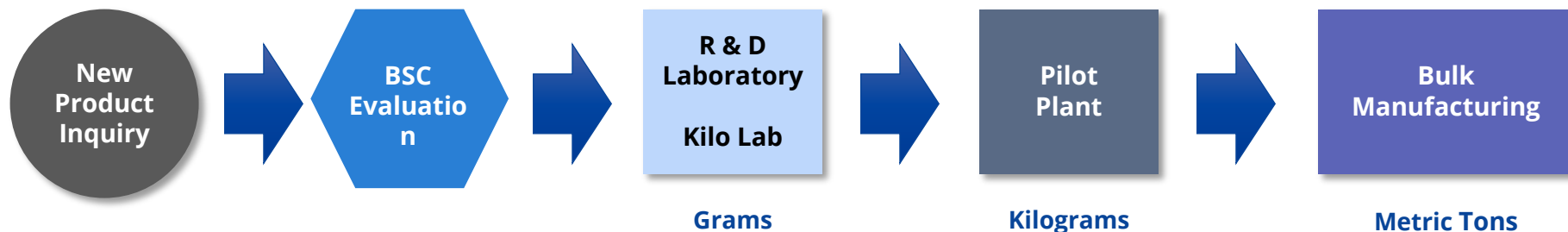
Investments to Support Electronic Materials Growth



- Growth in new product introduction and scale-up requiring expansion of kilo/pilot scale distillation
- Additional capacity addition in high volume distillation
- Upgrades to analytical capabilities to meet increasingly stringent trace metal requirements
 - Additional, dedicated ICP-MS
 - Installed in a new cleanroom
 - Critical environments (such sample prep hood) designed to achieve ISO-4 (Class 10) standards
 - Needed to achieve required detection limits

Specialty Custom Manufacturing – New Products

New Product Scale-Up Work Process



- Typical Work Process: Close collaboration with customers on development
- Scale Up from R&D to Commercial Quantities

- Air & Moisture-Sensitive Compounds
- Pyrophoric Materials
- Multi-Step Syntheses

Custom Packaging and Shipping



- Solids Packaging, Drums, Cylinders, ISO Tankers
- Global Shipments
- Customer Specific Packaging and Shipping

Environmental Health & Safety



- ChemStewards Certified (SOCMA) Tier 3
- 2024 SOCMA Safety Program Recipient Mead & Longmont sites
- Member of the Colorado Green Business Network – formerly CDPHE Environmental Leader Gold Award (since 2012)
- Sustainability Platforms
 - Ecovadis
 - CDP

Culture



ISO 9001:2015
CERTIFIED



Boulder Scientific Company™

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Sales@Bouldersci.com

(970) 535-4494

www.bouldersci.com

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