Boulder Scientific Company™

INNOVATIVE SPECIALTY CHEMICAL SOLUTIONS

SOCMA 2026
Nashville, TN

Who We Are Today

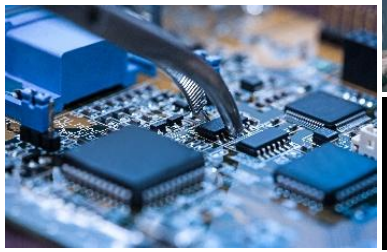
Custom Specialty Chemicals

Advanced Catalysts	Electronic Materials	Performance Materials	Fine Chemicals
•Polyolefins Industry	•ALD and CVD Precursor	•Defense and Aerospace Industry	•Research and Development •Life Sciences

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








Built on pioneering metallocene chemistry, BSC has expanded capabilities, products and end-market reach over time

BSC company timeline

Origins (1950s-1990s)
Metallocenes & organometallic foundations

Expansion (2000s)
Adjacent chemistries

Platform build (2015-2021)
Aerospace, capacity, Quad-C investment

Diversification (2022-today)
polysilane powder, supported catalysts, long-term contracts

1950s
Foundational metallocene chemistry pioneered by John Birmingham during graduate research with Geoffrey Wilkinson (1973 Nobel Prize in Chemistry)

1961
Boulder Scientific Company founded to commercialize organometallic chemistry

1979
BSC moves to a production facility established in Mead, CO

1990s
Metallocene-based polyolefins commercialized by major polymer producers, validating industrial demand

2017
Capacity expansion with new 15,000+ sq. ft. in Mead and new 2,500 sq. ft. lab in Longmont

2008
Entry into phosphine ligands, extending catalyst chemistry into hydroformylation applications

2019
Majority investment by Quad-C, and completion of Cell room 1 at Longmont for gas phase processes

2021
Completion of Cell 2 at Longmont, adding 25% capacity for core products

2021-2022
Leadership build-out (CEO, CCO, R&D leadership) to support multi-market growth

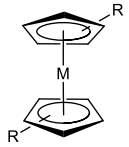
2024
Completion of Cell 3 expansion at Longmont enabling silane polymer production and 20% incremental core capacity

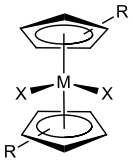
2025
First commercial polysilane powder production campaign completed under long-term supply agreement with major A&D customer

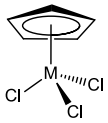
Investment in cleanroom and distillation capacity to support electronic materials customers

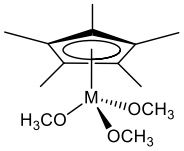
BSC Product Offerings

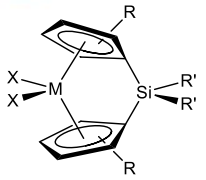
Advanced Catalysts & Precursors

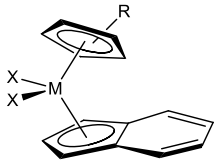


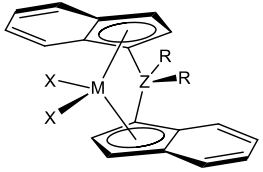


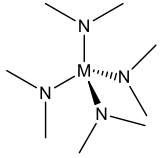






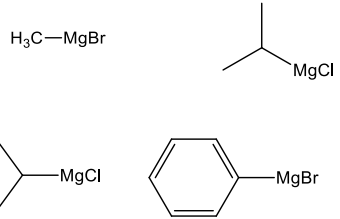




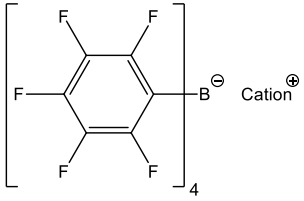


M = Ti, Zr, Hf, Ru, Nb, Ta, etc.
R,R' = H, Alkyl, Aryl
X = Halide, Alkyl
Z = C, Si, Ge, etc.

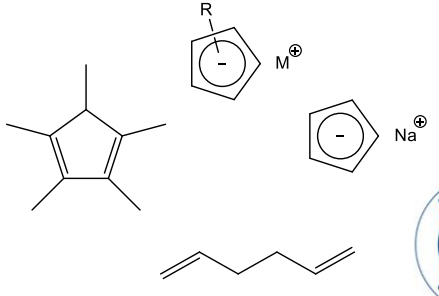
Grignard Reagents



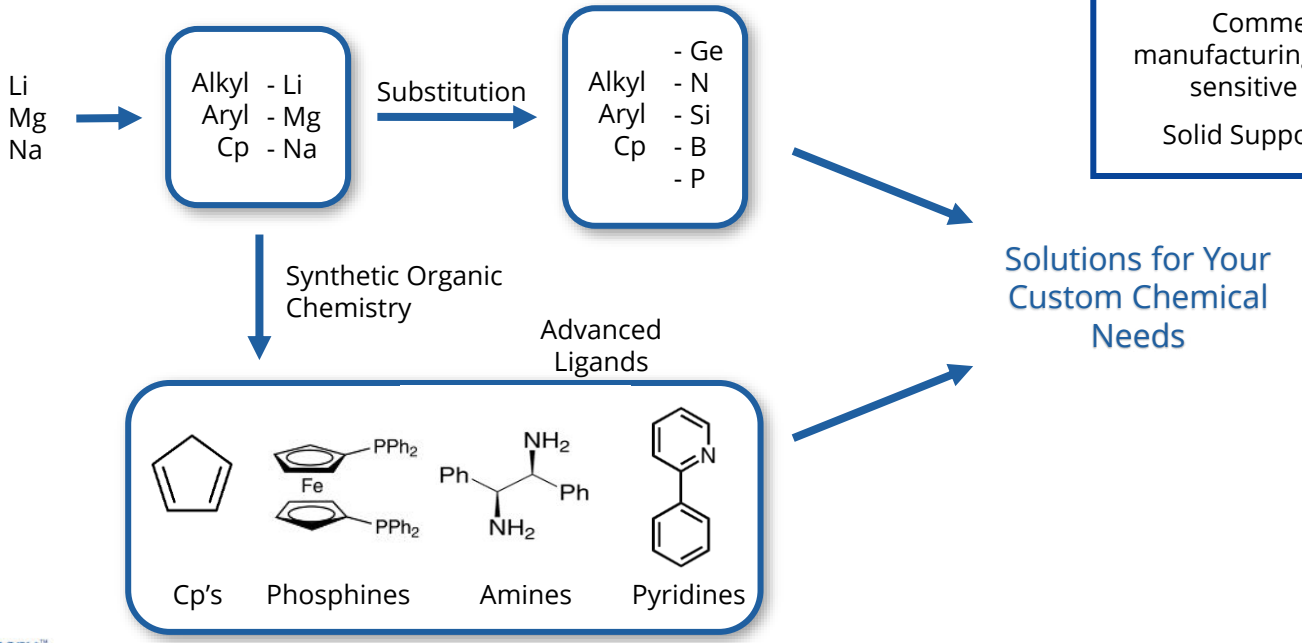
Boron Compounds



Organic Compounds



BSC Core Capabilities



BSC Core Capabilities:

Organic chemistry

Pyrophoric reagents

Commercial scale manufacturing of air/moisture sensitive compounds

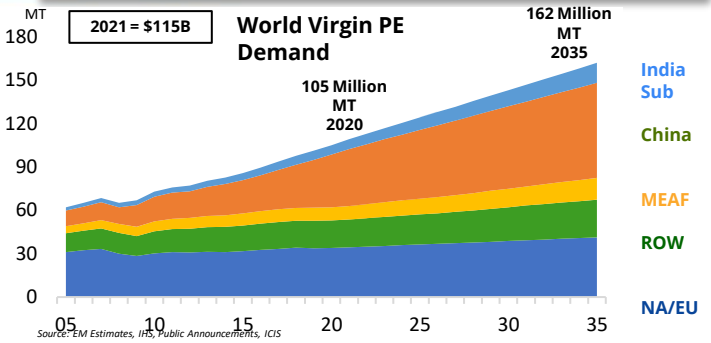
Solid Supported Catalysts

Polyolefin Industry Tailwinds

Global PE Market Trends

- LT Trends reflect global PE growth at ~3+% CAGR to 162 million MT by 2035
- Massive growth in China driven by growing middle class and rising standards of living
- 20+ million MT additions in nameplate capacity from 2021 to 2024 (50% in China)
- Growth in Virgin PE demand includes recycling, which will be predominantly chemical

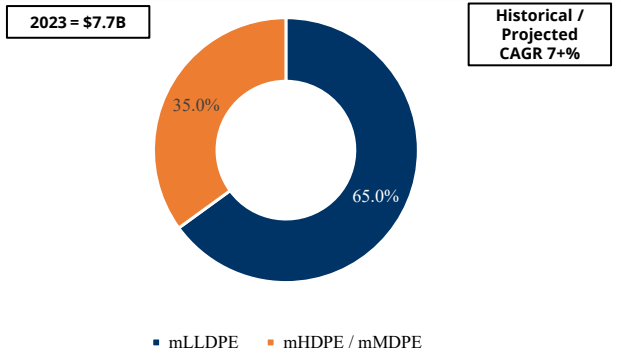
World Virgin PE Demand



Metallocene PE Market Trends

- Metallocene PE represents <7% of global PE market & grows 7+% annually
- mLLDPE is the largest metallocene PE and where many BSC catalysts are used
- Films are the largest mPE application followed by injection molding
- Key application demand drivers:
  - *Packaging / food packaging*
  - *Solar panels/ Batteries*
  - *Durable goods / industrial parts*

Metallocene PE Market by Product (2023)



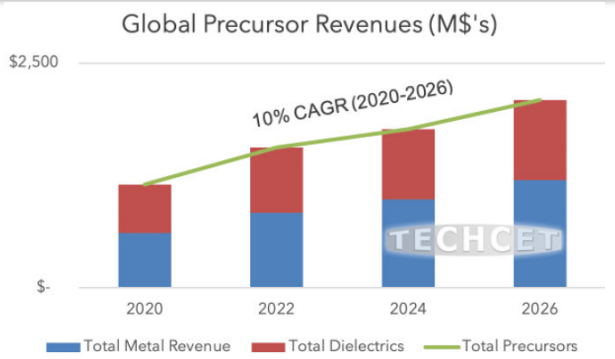
Sources: Precedence Research; GII Research.

Electronics Growth in North America

Semiconductor Growth & Investment

1) **Global 2023 silicone wafer shipments contracted (14%) - forecasted 2 yr. rebound - 2025 6% vs. 2022**
2) **L.T. metal precursor growth estimated at ~10% p.a.**
   - **Consumer electronics**
   - **Battery electric vehicles (BEV)**
3) **$52B U.S. government funding through the Chips for America Act**
4) **>$350B announced investment in North America from Intel, Micron, Samsung, TSMC, etc.**

Metal Precursor Growth (~10% CAGR)



Metal Precursor Value Chain

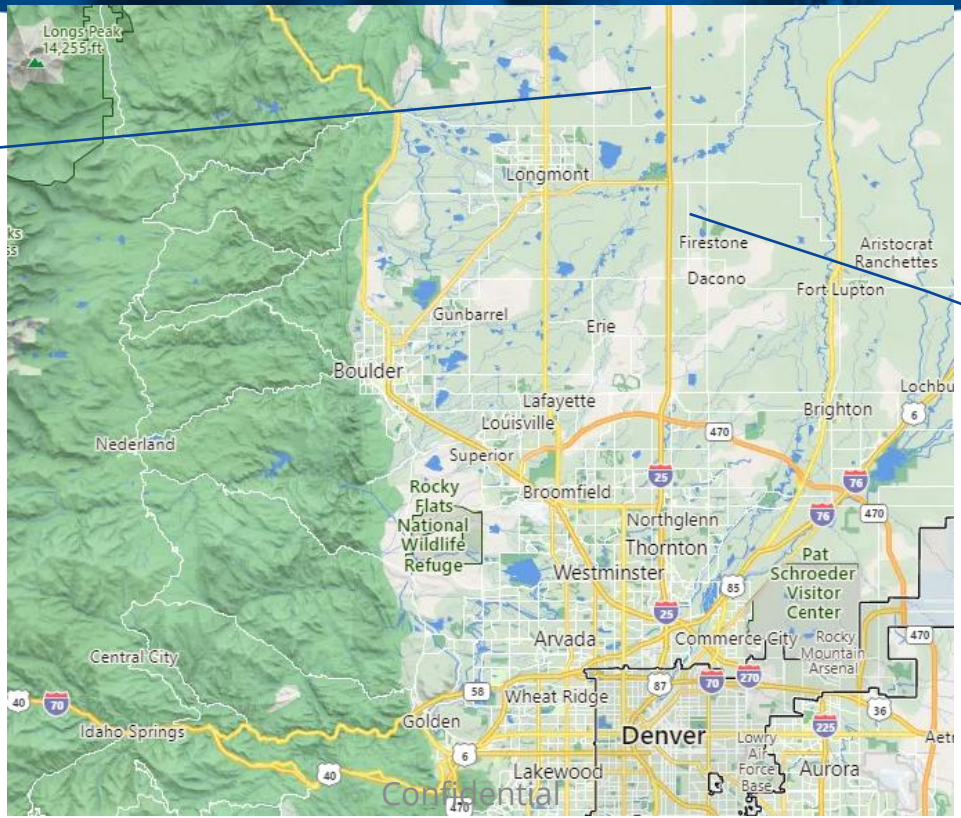
Raw Materials	Tier 2's	Tier 1's	Chip Mfg.'s
▪ Global Chemical Companies	▪ BSC ▪ Korea ▪ Russia ▪ Integrated*	▪ Air Liquide ▪ EMD* ▪ Adeka ▪ Entegris* ▪ Korea ▪ Japan	▪ Intel ▪ TMSC ▪ Samsung ▪ Micron ▪ SkHynix ▪ Etc.

BSC Position

- Largest North America based independent organometallic chemistry company
- Broad scale of development – grams to MT commercial products
- North America supply critical to feed investment / uncertainty regarding global supply chains
- Chemistry increasingly important to meeting purity requirements
- Significant pipeline of development projects

Facilities in Northern Colorado

Mead
R&D, Pilot Plant, Manufacturing, Analytical



Longmont (HQ)
R&D, Manufacturing, Corporate Office

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INNOVATIVE SPECIALTY CHEMICAL SOLUTIONS

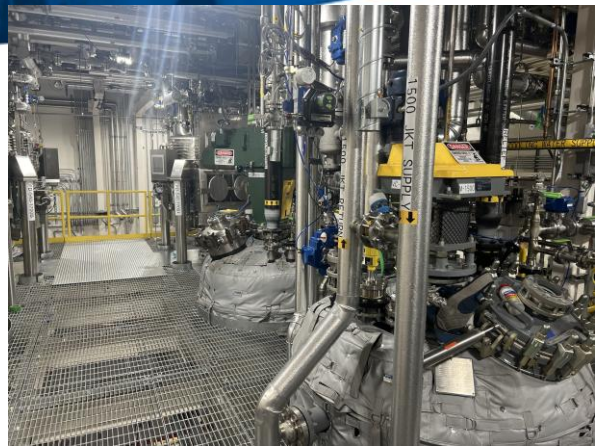
CERTIFIED ISO 9001:2015 COMPANY

Facilities in Northern Colorado

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



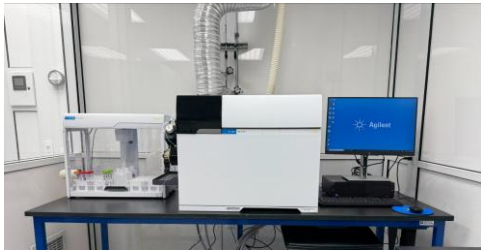
- Started-up 4Q 2024
- Operational and currently running
- Multi-purpose
  - Mix of mid- and large-scale reactor trains
  - Full automation
  - Supports growing demand for products across all of BSC's markets

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

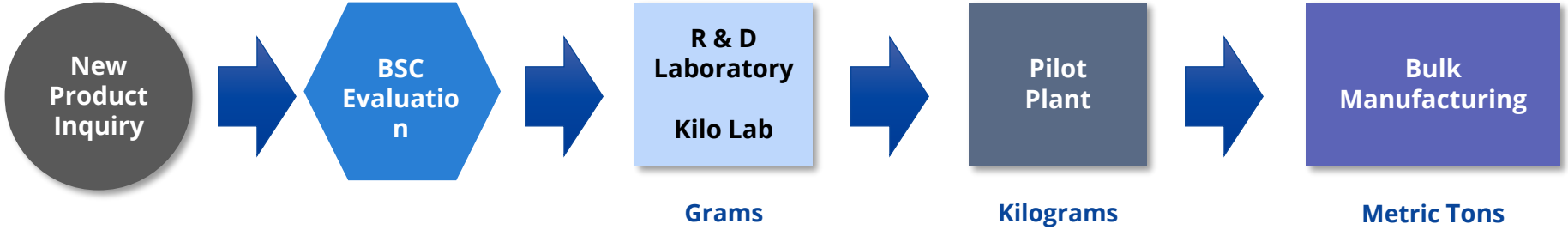
Investments to Support Electronic Materials Growth



- 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® A PROGRAM OF SOCMA

SOCMA MEMBER COMPANY

ecovadis

CHEMSTEWARDS® MANAGEMENT SYSTEM

CDP DISCLOSURE INSIGHT ACTION

- ChemStewards Certified (SOCMA) Tier 3
- 2024 & 2025 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

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