



Chemistry Made for What Matters

CONFIDENTIAL





Callery, Wychem, & Strem have joined Ascensus to bring you a broad portfolio of chemicals for **R&D to Commercial Scale**

- Borohydrides
- APIs & Intermediates
- Boranes
- Specialty Alcoholates

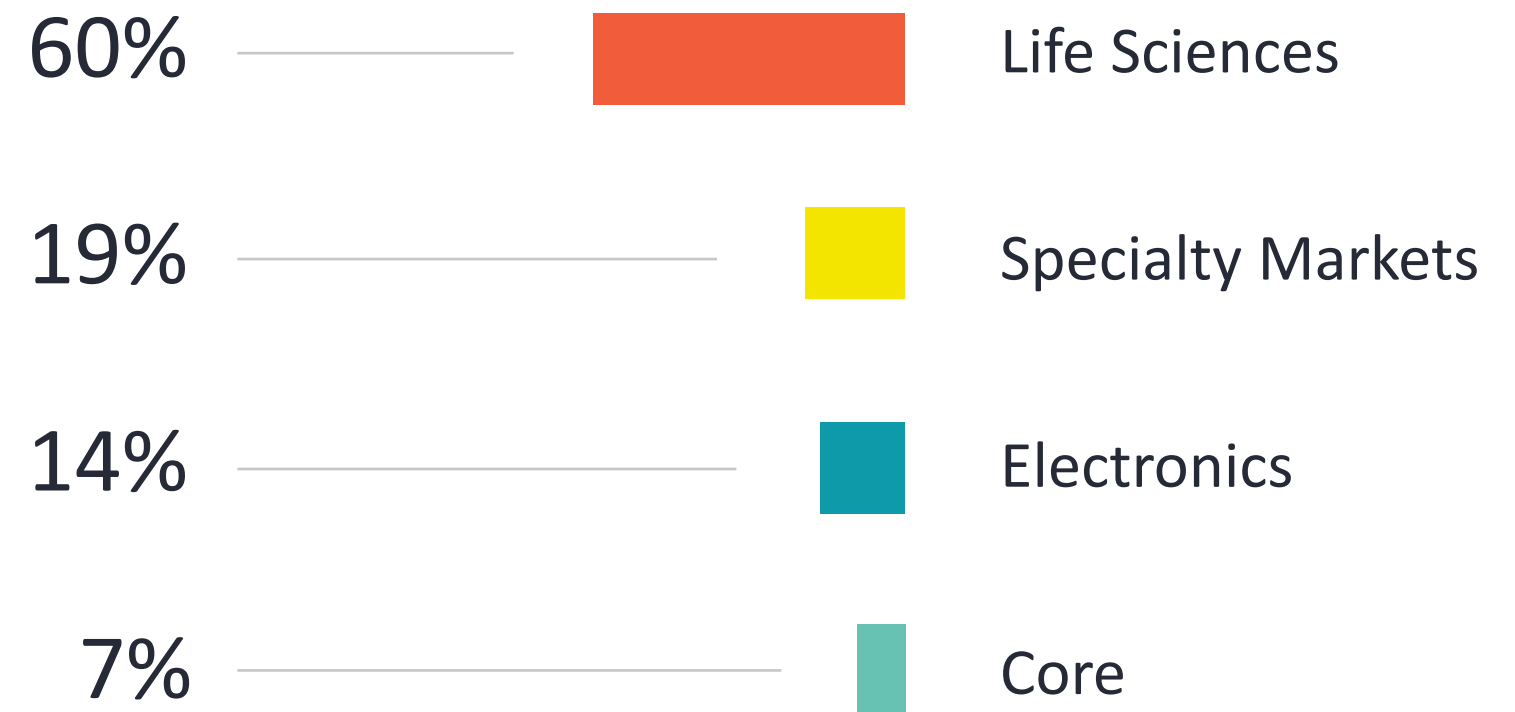
- 6000+ Specialty Chemicals
- Thin Film Deposition
- Catalysis
- Fine Chemicals



Ascensus At-A-Glance

Our specialty chemistries improve the way clients create their products by making what they do easier, more efficient, safer and more selective. We have a global reach that ensures our customers can consistently manufacture their products to the highest standards so they can make the best possible products to change people's lives for the making the world a better place through [Chemistry Made for What Matters](#).

- HQ in Bellevue, WA
- 300+ employees worldwide
- 4 Manufacturing locations
 - Newburyport, MA
 - Evans City, PA
 - Elma, WA
 - Cambridge, UK
- 5 Target Markets
 - Life Science
 - Electronics
 - Specialty Chemicals
 - Core
 - Catalog



Market Overview

Life Science

Pharmaceutical
Agrochemical
Nutraceuticals
Veterinary
Fine Chemicals
GMP API
Custom Synthesis

Bulk
Reagents/Building
Blocks

Electronics

CVD/ALD Precursors
OLEDs/LCD
Electroless Metal
Plating
Cylinder/Bubbler
Filling & Cleaning

Precious Metal
Recovery

Specialty

Surfactants
Tissue
Petrochemicals

Coatings &
Adhesives

Core

Newsprint &
Magazine

Packaging

Pulp & Paper

Catalog

6000+ Products Covering:
Catalysts/Ligands
Academic Research
Microelectronics
Pharmaceuticals
Petrochemicals
Specialty Chemicals



OUR PRODUCTS



OUR PRODUCTS

Borohydrides

Boranes

Specialty Alcoholates

Thin Film Deposition

Other Specialty Chemicals



Fine Chemicals & Intermediates

Stream Catalog

APIs

Catalysis





OUR COMMITMENT TO YOU

High Purity/ High Quality

Consistent, high-quality chemicals guarantee you can make the best possible products. Our products are high purity, typically 99%, with some at 99.9999% metals purity.

Downpack

Experience in handling hazardous and sensitive materials allows for ease of packing small quantities in a variety of containers such as bottles, ampoules, cylinders, and bubblers.

Reliable Global Supply

An expanded global supply network builds on world class service and reliability to guarantee the safe, secure & timely delivery of orders .

Customer Focused Service & Technical Support

Our goal is to provide a positive experience by addressing any concerns or challenges through quick and thorough responses from our knowledgeable customer service. Through our ChemStewards program, we provide on-site customer training working directly with your team to keep your operations and people safe.



BY ASCENSUS
SPECIALTIES

STREM CATALOG



Catalog Market Overview

6,000+ Specialty Chemicals

Life Science

Catalysts

Ligands

Photocatalysts

Biocatalysts

Screening Kits

Microelectronics

CVD/ALD Precursors

Metal Carbonyls

Bubblers & Cylinders

Cleaning & Filling Services

Specialty

Nanomaterials

Graphene

Quantum Dots

Metal Organic Frameworks
(MOFs)



Catalysts & Ligands

2,400+ products

- Biocatalysts
- Chiral Catalysts
- Chiral Phosphoric Acids
- Chiral Ligands
- Metathesis Catalysts
- Photocatalysts
- Screening Kits

Applications / Categories

- Numerous commercial and fine chemical applications
- Homogeneous; Organocatalysts, Photocatalysts, Chiral catalysts
- Heterogeneous; Electrocatalysts, zeolites, oxides, metals supported catalysts (carbon, alumina), metals, nanomaterials
- Biocatalysts/Enzymes; Food processing, organic transformations

Markets

- Pharmaceutical
- Chemical
- Petrochemical
- Biological
- Agrochemical



Screening Kits

- Kits can range from 3-40 components
- Screening kits contain groups of related items
- They are used to help customers determine which item is best for a specific project
- These products offer a small discount compared to buying each item individually



Materials Science

~50% of Catalog

- CVD/ALD Precursors
- Nanomaterials
- Graphene
- MOFs
- Quantum Dots

Applications / Categories

- Graphene: Touch screen display, conducting wires, conductive inks
- Quantum Dots: solar cells, photovoltaics, electronics
- MOFs: Hydrogen storage, Gas separation (by molecular sieving, open metal sites), Catalysis (open metal sites), Gas adsorption / Carbon capture (CO₂), Sensors, Imaging, Drug delivery

Markets

- Microelectronics
- Agrochemical
- Specialty



CVD/ALD Precursors

500+ Products

- Metal alkyls
- Metal alkylamides
- Metal amidinates
- Metal alkoxides
- Metal β -diketonates
- Metal Carbonyls
- Metal halides

Applications / Categories

- Optical: Antireflection, optical filters, OLED layers, photonic crystals, transparent conductors, electroluminescence, solar cells, lasers, integrated optics, UV blocking, colored coatings
- Semi / Nanoelectronics: Flexible electronics, gate dielectrics, gate electrodes, metal interconnects, diffusion barriers, DRAM, multilayer-capacitors, read heads
- MEMS: Etch resistance, hydrophobic/anti-stiction
- Chemical: Catalysis, fuel cells
- Wear resistant: Blade edges, molds and dies, solid lubricants, anti corrosion
- Nanostructures: Inside pores, nanotubes, around particles, AFM tips
- Other: Roll to roll, internal tube liners, nano-glue, biocompatible, magnetic

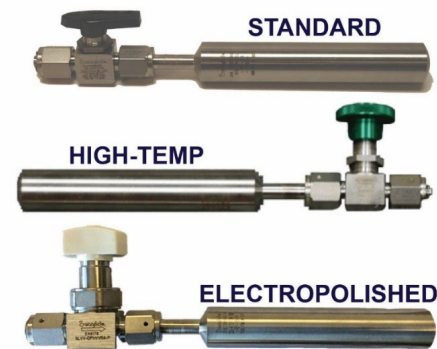
Market

- Microelectronics



Cylinders, Bubblers & Services

ALD Cylinders



CVD Bubblers



Horizontal Alignment

Vertical Alignment



Special Configurations



Services

- Filling / Refilling of Bubblers & Cylinders
- Cleaning & Testing
- Custom Designs



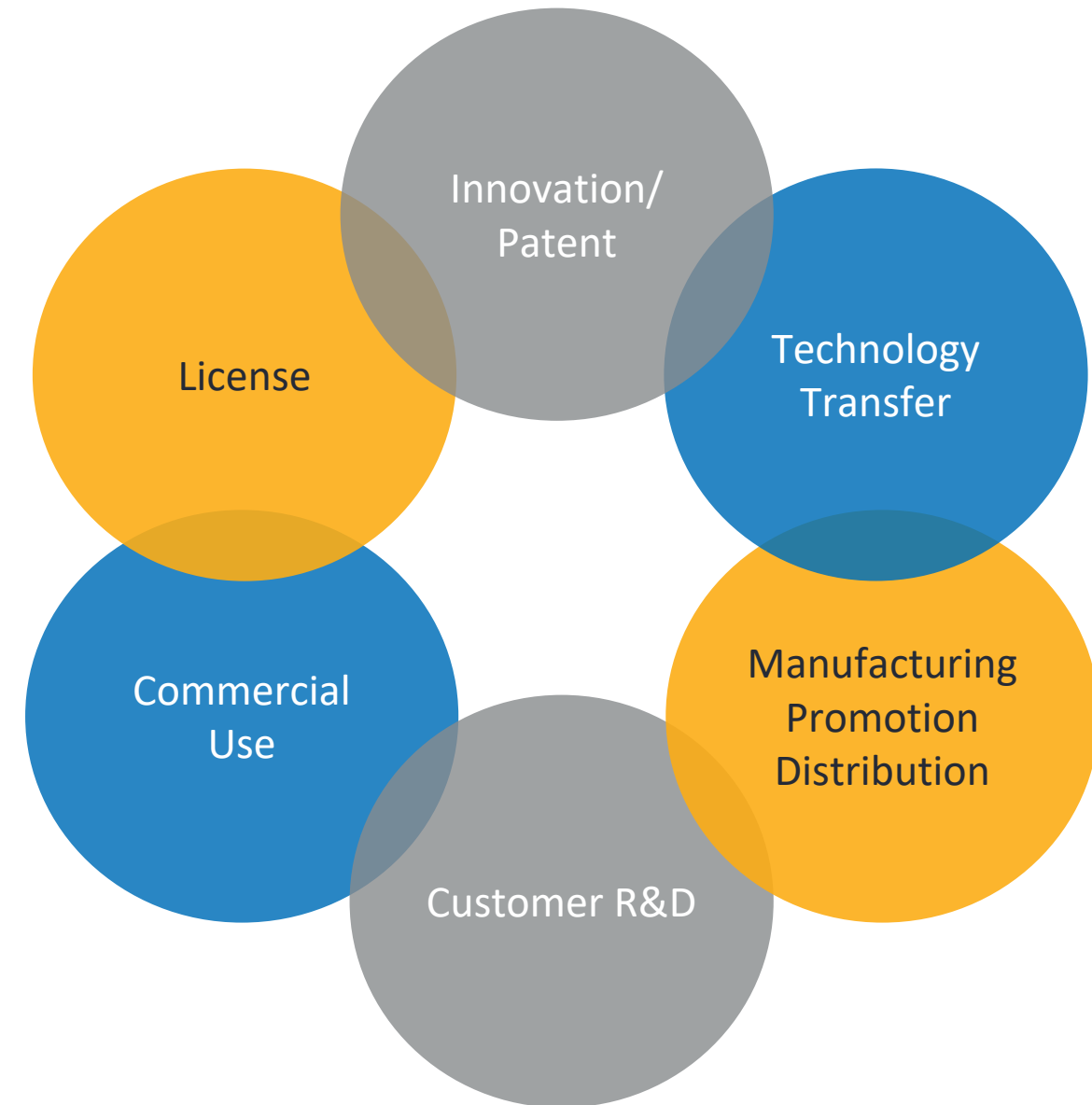
What sets us apart?

- Quality
 - Built into materials at every step
 - Packaging/Shipping
 - Service
- Reputation
 - Catalog established in 1964
- Relationships & Collaborations
 - Large network
 - Introduce products that fit
- Global Reach



Technology Diffusion

DRIVING INNOVATION AND OPPORTUNITY



Collaborators

We work with many partners across different industries and markets.

- Novozymes
- Takasago
- Daicel
- MIT/Buchwald
- Harvard/Roy Gordon
- Zejun/Wenjun
- Solvay
- BASF
- Solvias
- Evonik
- HepatoChem
- Apeiron
- UbiQD
- Wayne State University
- Dalhousie
- Max Planck Institute/SGK
- Framergy



**Visit us at
Booth 603**

