

# Cargill Bioindustrial

**Unleashing nature sustainably  
for a better tomorrow**

*B2B , Specialty chemicals uit lokale biomassa  
Karel De grote Hogeschool - Campus Hoboken  
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## How Cargill works to nourish the world

Cargill is a family company committed to providing food, ingredients, agricultural solutions and industrial products to nourish the world in a safe, responsible, sustainable way.

Sitting at the heart of the supply chain, we work with producers and customers to source, make and deliver products that are vital for living — from feed to food to flooring to renewable fuel.

Agriculture

**160,000**

Employees

Food

**70**

Countries

Animal nutrition and protein

**155+**

Years of experience

Financial and industries

**\$165 billion**

Fiscal 2022 Revenue

We source and transform raw materials into ingredients, finished goods and energy

We move products around the world

We provide insights

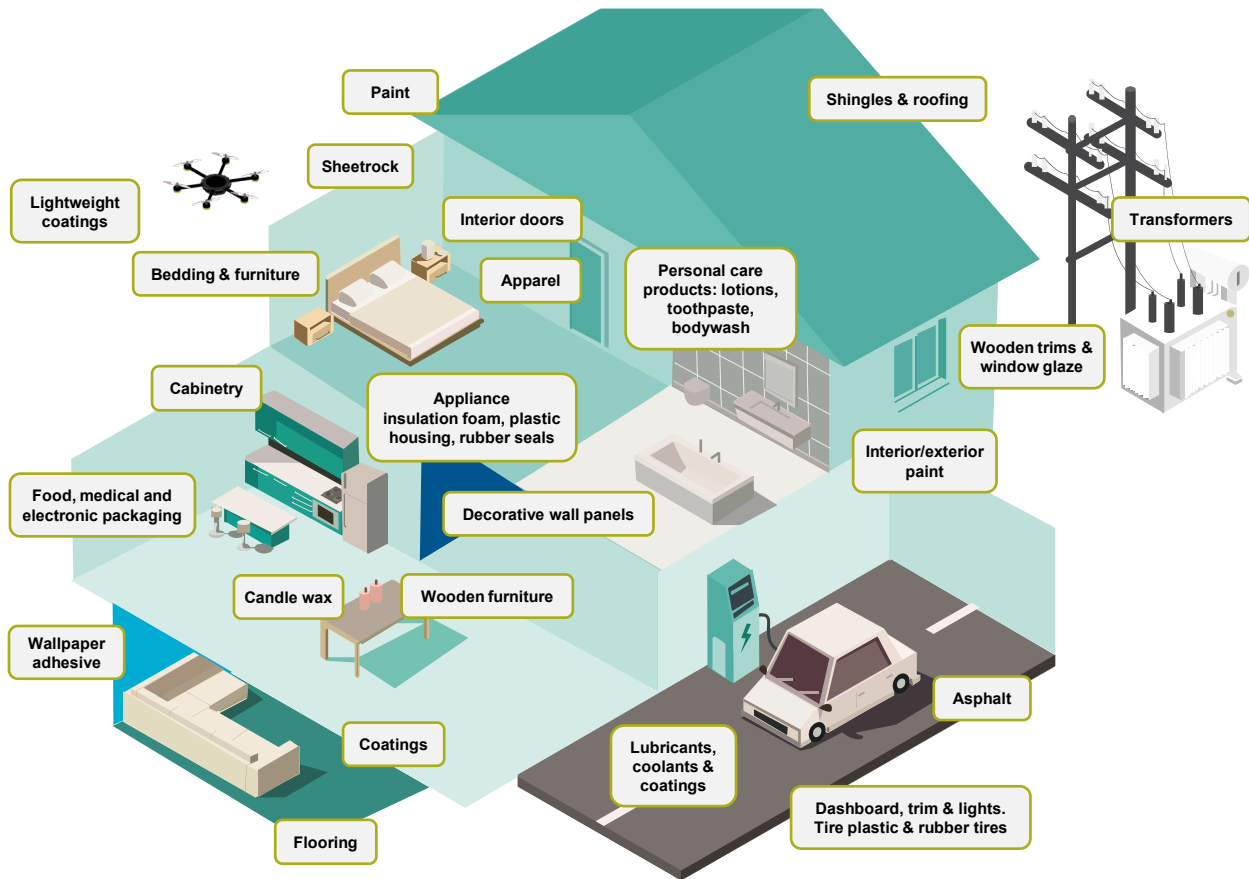


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A **pivotal** time

# Cargill Bioindustrial is made for this moment.

We're harnessing the power of nature-derived ingredients to help meet the world's needs for renewable materials.



# Reaching across bioindustrial markets

## Cargill Bioindustrial

Industrial Technologies			Industrial Performance Specialties					Consumer	Biointermediates		Natureworks JV
Waxes	Performance Chemicals	Binders & Adhesives	Power Systems	Road Constr.	Polymer Additives	Coatings & Polymers	Energy Technologies	Beauty	Qore JV	Innovation Projects	
Candle wax	Agriculture, Feed & Food	Wood	Dielectrics solutions	Asphalt	Amides	Adhesives & elastomers	Transport technologies	Beauty	1,4-butanediol	Apparel, Packaging, Absorbent Hygiene	
	Paints & Inks	Paper & Board Packaging	Cooling solutions	Concrete	Plasticizers	Coatings	Sustainable energy	Personal care ingredients			
	Tires, Rubbers & Oilfield	Building Construction			Anti-Statics		Industrial lubricants				
	Diversified chemicals & Others						Oilfield & Fuels				
	Polyols										

# Cargill Bioindustrial manufacturing & research sites



# We connect customers to the industry's broadest portfolio of solutions derived from nature

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Our role at the center of the agricultural supply chain benefits our customers



Access To  
Renewable  
Crops



Feedstock  
Conversion  
Technologies



Application  
Expertise



Partnerships



Portfolio  
Approach

# Harnessing the power of nature-derived ingredients across bioindustrial markets

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High-performance bio-based plasticizers



Paraffin-free candles



Nature-derived ingredients for personal care



Highly effective lubricants to extend the life of machinery



Polymer additives for bio-based plastics



Innovating in apparel, packaging and absorbent hygiene

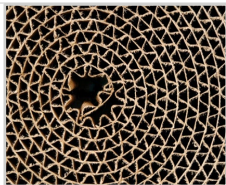


# Your go-to-partner for innovation: Industrial Technologies

## Industrial Technologies

### Binders & Adhesives

- Wood
- Non-wovens
- Packaging



### Performance Chemicals

- Ag, food & feed
- Paints & inks
- Bio-polyols
- Tires & rubbers
- Oilfields



### Waxes

- Candle waxes
- Industrial waxes



Products

**BiOH Fusion™** adhesives, barriers, coatings

**Agri-Pure™** base & reacted oils,  
**Biovero™** bio-based polyols, distilled fatty acids & FAME  
**BiOH™** soy-based polyols  
**Oxi-Cure™** coalescing agents  
 Food & industrial emulsifiers, bio-based additives

**NatureWax™** candle waxes  
**Agri-Pure™** industrial waxes for lubricants, polishes, ignition products, coatings and more

Technologies

Flour, glycerin, starches, accelerator, glucose

Hydrogenated & interesterified veg oils, fatty acids, esters, FAME, Polyols, glycerin

Hydrogenated vegetable glycerides  
 Interesterified vegetable oils

# Your go-to-partner for innovation: Performance Specialties

## Performance Specialties

### Coatings & Polymers

- Adhesives
- Coatings
- Engineering plastics



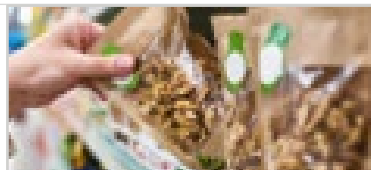
### Energy Technologies

- Future mobility
- Sustainable energy
- Industrial



### Polymer Additives

- Food & chemical packaging
- Automotive plastics
- Polyolefin resin production



### Power Systems

- Transformer dielectric fluids
- Immersion cooling



### Road Construction

- Asphalt
- Mortar & concrete
- Block admixture



Products

**Pripol™ & Priamine™** dimer acids, diols and diamines  
**Priplast™** polyester polyols  
**Altor™** polyaspartic esters  
**B-Tough™, ChemCure™ & ChemMod™** solutions for epoxy resins

**Priolube™** ester base oils  
**Perfad™** organic friction modifiers  
**Priolube™ EF**  
 EV fluids

**Optislip™, Incroslip™, IncroMold™ & IncroMax™** friction control  
**Atmer™** processing aids  
**Ionphase™ & Atmer™** static control  
**Biovero™, Vikoflex™ & Syncroflex™** plasticizers

**FR3™ & FR3r™** natural esters  
**NatureCool™** immersion cooling fluid

**Anova™** rejuvenator, warm mix additive, modifiers  
**Acme Shield™** admixtures

Technologies

Polymerized fatty acids, diols and diamines, esters, epichlorohydrin derivatives

Esters, amides, fatty alcohols, alkoxyates, phyllosilicates

Amides, esters, alkoxyates, inherently dissipative polymers

Vegetable oil based esters

Engineered vegetable oil Tall Oil Fatty Acid (TOFA) and derivatives, nonyl phenol

# Your go-to-partner for innovation: Personal Care

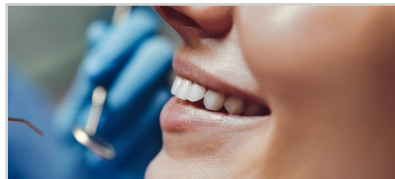
## Skin Care



## Hair Care



## Oral Care



## Color Cosmetics



### Products used throughout above categories

**Actigum™**, **FiberDesign™**  
citrus, **Satiaxane™**  
**Satiagel™**, **Stardesign™**  
**Care**, rheology modifiers

**Stardesign™ 05340**,  
**Satrdesign™ Pure**  
sensory enhancer

**Emultop™**, **Stardesign™**  
**Power** emulsifiers

**Floramac™ 10**, **Floraesters™**,  
**Botanibutter™**, **Botanijelly™**,  
**Cocoadesign™**, **Florasun™ 90**,  
**Sustainable Cocoa Butter**  
emollients

**L22™** skin lipid mimetic

**Florabeads™** scrubbing and  
visual effect

### Technologies used throughout above products

Biofermented wheat  
polymers, fibers, carrageenan  
polysaccharides,  
hydroxypropyl starches

octenyl succinic starch,  
native starch

Lecithin, hydroxypropyl and  
octenyl succinic starches

Hydrogenated  
& interesterified veg oils,  
hydrogenated vegetable  
glycerides, esters

Jojoba oil/macadamia seed  
oil esters, squalene,  
phytosteryl macadamiate,  
phytosterols]

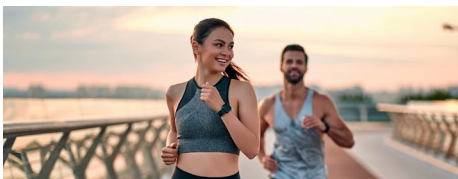
Jojoba esters capsules

Products

Technologies

# Your go-to-partner for innovation: Biointermediates

## Our Focus Areas



Apparel



Packaging



Absorbent Hygiene

## Qore Joint Venture

The Qore joint venture between Cargill and Helm will bring biobased 1,4-butanediol (BDO) to market in 2024 under the brand name QIRA™

The Cargill logo, featuring the word "Cargill" in a bold, black, sans-serif font with a green leaf-like shape above the letter "i".The Qore logo, featuring the word "QORE" in a bold, light blue, sans-serif font. The letter "O" is stylized with a dot in the center.

*Together we create a sustainable future!*



# Sustainability at our core

Agriculture is how Cargill will address climate change, protect our land and water and sustainably feed a growing population.



## Climate

Reduce greenhouse gas emissions in our operations **by 10% by 2025**. Reduce greenhouse gas emissions in our supply chain **by 30% per ton of product sold** by 2030.



## Land & Water

Transform our agricultural supply chains to be **deforestation-free** by 2030. Enable a **water positive impact** in our operations, supply chains, and communities by 2030.



## People

**Respect internationally recognized human rights.**

Work alongside our employees, farmers, customers and communities to improve livelihoods and build a more equitable, inclusive and resilient food system.





Corn



Wheat



Soybean

# Our primary raw material supply chain

## Sustainable feedstocks

We use renewable feedstocks, renewed each year, and in some cases more frequently, to create our bio-based products. We process a wide range of agricultural commodities and specialty ingredients, including co-product valorization

to make productive use of all feedstock components, then transport them to our customers where they are made into products for industrial and consumer use.



Rapeseed



Seaweed



Sugarcane

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