

Product Portfolio: **Specialties**

**Providing Innovative Chemistries
for Product and Process Improvements**



Solenis is proud to be one of the top specialty chemical companies in the world. We are a highly respected supplier to manufacturers of adhesives, sealants, paints, inks, coatings, textiles, and composite and engineered wood products. Our versatile product portfolio for specialty applications helps manufacturers around the world meet their market challenges and outperform their competitors.

Improve Your Market Position with Solenis Expertise

Continuous process improvement and innovative product development are essential to maintaining your edge in the marketplace.

That's why you're constantly looking for new ways to improve efficiency, quality and profitability. Solenis has the specialty chemicals and equipment, the R&D support services and the applications expertise you need to meet these demands.

Solenis offers many unique chemistries that deliver a variety of performance properties, including enhanced water resistance, water insolubility, adhesion, toughness, flexibility, high temperature resistance and anti-blocking. These chemistries enable customers to improve their existing products and processes, as well as create new products with novel properties.



Biocides

Microorganisms can cause numerous problems in aqueous systems, including slime deposits, microbiologically induced corrosion, unpleasant odors, and hazardous gases. Likewise, they can cause raw materials to spoil and impact the stability the quality of a finished product.

Solenis offers a variety of broad-spectrum, water-dispersible technologies, including organic biocides and oxidizing biocides, that effectively control microbiological growth in industrial processes and prevent additive spoilage.



Colorants

Solenis offers a comprehensive range of colorants that enhance the visual appearance and quality in many applications including coatings, adhesives, molded pulp, and a multitude of niche applications. The range has been designed to provide a wide spectrum of colors that can be used to enhance extensive applications ensuring that our customers can achieve the exact shade that their customers are looking for.

- Basic Dyes
- Direct Dyes
- Pigment Preparations

Crosslinking Resins, Curing Agents, Strength Additives, and Polymers

Solenis' crosslinkers, curing agents, and polymers enhance the end use performance of a variety of products by imparting properties such as water resistance, adhesion, strength, durability, flexibility, charge control, and high temperature stability. Products benefiting from these chemistries include specialty papers, pigment dispersions, inks, coatings, latex gloves, photo-resist coatings for circuit boards, textile treatments and coatings, wool shrink proofing, and bottle label adhesives.

- Formaldehyde-free Resins
- Polyacrylamide (PAM)
- Polyamide Epichlorohydrin (PAE)
- Polyamine
- PolyDADMAC
- Polyvinylamine (PVAM)
- Styrene Maleic Anhydride (SMA)

Note: Product offerings may differ by region.

Defoamers and Antifoams

Entrained air and surface foam can cause quality, production, and environmental problems. A full range of specially formulated products that minimize the detrimental effects of entrained air, surface foam, and surfactant-stabilized foam are available from Solenis.

- Hydrocarbon Oil-based Defoamers
- Silicone-based Defoamers
- Vegetable Oil-based Defoamers
- Water-based Defoamers
- Water-extended Defoamers
- 100% Active Concentrate Defoamers

Dispersants and Surfactants

Solenis' unique blends of dispersant and surfactant chemistries are used to enhance a diverse mix of consumer and industrial products, including detergents, concrete mixes, emulsifiers, adhesives, pigments, paints, inks, coatings, and defoamers. They are also used in aqueous process systems to disperse or saponify organic and inorganic materials.

In waterborne coatings application, Solenis wetting agents are used to lower the surface tension of the liquid to allow the liquid to wet the pigment surface, as well as the substrate. Key benefits include improved gloss, enhanced color development, increased color-strength and hiding power, prevention of floating, and prevention of flocculation.

With a variety of unique chemistries and extensive formulating expertise, Solenis is well equipped and well qualified to provide you with a cost-effective solution for your specific application.

Hydrophobic Agents and Release Aids

Solenis offers a broad range of chemistries that prevent water and other liquids from penetrating a finished product by imparting hydrophobic properties to the product during its manufacture. Products typically requiring water repellent properties include adhesives, building materials, specialty papers, and textiles.

Solenis' line of paraffin wax emulsions and specialty release aids are also beneficial in applications where release, scuff resistance, lubricity, or anti-blocking is a required property of the finished product or the manufacturing process.

- Alkenyl Ketene Dimer (ALKD)
- Alkenyl Succinic Anhydride (ASA)
- Alkyl Ketene Dimer (AKD)
- Styrene Maleic Anhydride (SMA)
- Paraffin Wax Emulsions
- Rosin Size

Industrial Cleaners

Whether you want to reduce your operating costs, extend the life of your equipment, or simply keep your work environment

clean, Solenis offers a wide range of cleaners, degreasers, and descalers for the most demanding applications.

- Acid-based Cleaners
- Alkaline-based Cleaners
- Chelating Cleaners
- Non-corrosive, Organic Acid Cleaners
- Solvent-based Cleaners

Open Time Prolongers

In paint and plaster formulations, it is important to control the rate of drying to allow for working time and minimize cracking. Due to the changes in VOC regulations, the amount of glycols has been reduced in paint formulations. Since these glycols were used to improve open time and wet edge, the need for low VOC-additives to enhance paint workability has increased. Our products reduce water release, extend open time, and reduce cracking.



Softeners

Solenis' softeners enhance the tactile properties of a finished product through softness and/or bulk improvement. Handfeel can be improved in many applications, including the manufacture of textiles and nonwovens.

- Cationic Softeners
- Nonionic Softeners

Wood Adhesives

Our proprietary adhesive technology provides cost-competitive solutions to manufacturers looking for alternatives to urea-formaldehyde adhesives. We have developed bio-based adhesives from renewable sources for the manufacture of interior plywood, engineered wood flooring, and curved plywood, MDF and particleboard.

Our no-added-formaldehyde (NAF) adhesives contain 60-90% bio-based content.

Quick Guide: Specialties

Our versatile product portfolio for specialty applications helps manufacturers around the world meet their market challenges and outperform their competitors. Product offerings differ by region.

	Biocides	Cationic Crosslinkers	Colorants	Defoamers	Hydrophobic Agents	Industrial Cleaners	Open Time Prolongers	Paraffin Waxes	Polymers + Coagulants	Rosin Soap Dispersants + Surfactants	SMA Copolymer Resins	Softeners	Strength Additives	Wetting Agent	Wood Adhesives
Adhesives	•	•	•	•		•				•	•				
Coatings	•	•	•	•	•	•		•		•	•			•	
Construction				•	•		•			•					
Dipped Gloves											•				
Electronics			•								•				
Fertilizer				•											
Filter Media	•	•				•									
Inks		•	•								•				
Molded Pulp	•	•	•	•	•	•		•	•				•		
Textiles		•		•	•	•							•	•	
Tire Cord / Rubberizing								•							
Paints	•			•		•				•				•	
Pigment Dispersions										•				•	
Super Absorbent Polymers		•													
Wood Products			•	•										•	•
Wool Shrink Proofing		•													
Other / Niche	•	•	•					•	•		•	•	•		

More Information

To learn more about Solenis specialties, contact your technical sales representative or visit us online.



Advanced problem-solving for your toughest challenges.

Solenis is a global leader in specialty chemicals for water-intensive industries. With an average of 20 years expertise, our team is the industry's most knowledgeable. That's how we solve your toughest challenges—whether you're in the pulp, paper, oil and gas, petroleum refining, chemical processing, mining, biorefining, power and municipal market. Combining the right people, the right experience and the right technology, we're built to deliver value.



 **SOLENIS**[™]
Strong bonds. Trusted solutions.

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