Enabling every day

Eastman non-phthalate plasticizers
The world’s most trusted plasticizers—
making everyday products extraordinary

Every day, your life is made a little better by plasticizers. After all, you’ll find them in everyday places—at home, in the car, and at the office—and in everyday products, from the floor you walk on to the chair you sit in to the toys your children enjoy. Plasticizers make thousands of products easier to handle, more flexible, and ultimately better able to perform.

At Eastman, we have a long history of producing innovative non-phthalate plasticizers for worldwide markets, including:

- Adhesives
- Automotive
- Decals, graphics, graphic arts, and inks
- Fabric and furniture upholstery
- Flexible PVC
- Flooring and interior surfaces
- Food contact
- Gaskets, hoses, and tubing
- Medical
- Peroxides
- Polyurethane
- PVC plastisols
- Sealants and caulks
- Toys and child care
- Wire and cable

Your business, however, needs more than reliable plasticizers—it needs a reliable plasticizer manufacturer. As the world’s number one producer of non-phthalate plasticizers, Eastman has proven to be a dependable and trusted plasticizer supplier for more than 50 years. With manufacturing capabilities around the globe, including sites in North America, Europe, and Asia, we are positioned to deliver the plasticizers you need to thrive in a rapidly changing industry and a dynamic regulatory environment. Our production facilities deliver consistent products to fit your needs and ensure a secure supply.

Our versatile portfolio represents the broadest range of non-phthalate plasticizers in the industry. In fact, we are the world’s leading producer of non-phthalate general-purpose and specialty plasticizers.

What can Eastman plasticizers enable for you today?
Adhesives

*Stick with the safe choice.*

Plasticizers improve the performance of adhesives by creating much-needed elasticity and optimizing viscosity, low-temperature efficiency, set-time functionality, impact resistance, and even tack.

Eastman offers a diverse portfolio of non-phthalate, high-solvating plasticizers to help adhesive manufacturers meet performance and regulatory challenges. Our Eastman Versafix™ plasticizer and benzoate-based Benzoflex™ plasticizers have become the standard of excellence for the industry by providing the optimal balance of performance and value for water-based adhesives.

In most cases, our non-phthalate alternatives can be substituted for phthalates without requiring significant changes to your manufacturing operations.

Admex 6995
Benzoflex 2088
Benzoflex 352
Benzoflex 50
Benzoflex 9-88 SG
Benzoflex 9-88
Benzoflex LA-705
Eastman Triacetin
Eastman TXIB
Eastman Versafix
Automotive

Driving performance

Many of Eastman’s plasticizers are geared to meet the demanding needs of the automotive industry. Eastman Effusion™ plasticizer, for example, is ideal for automotive underbody coatings and body seam sealers, as it is highly efficient and effective at lowering fusion temperatures. Need a plasticizer to promote good paintability of your PVC sealer or coating? Eastman’s Benzoflex™ 1046 and Benzoflex™ 354 plasticizers have been proven to promote excellent paintability. If you’re looking to replace DnIP in your formulations, give Eastman 168™ non-phthalate plasticizer a try. You will find that the properties provided by Eastman 168 are closer to DnIP than other alternative replacements.

Plasticizers play an integral role in the overall automotive industry. They help enable some of the driving forces in this industry, such as lightweighting and energy reduction. Bumper to bumper, inside and out, Eastman has the plasticizers that manufacturers need today and down the road.
Decals, graphics, graphic arts, and inks

Designed to perform

Eastman plasticizers help increase flowability and reduce film formation temperature in inks and graphic arts. The nonmigrating properties of our non-phthalate solutions make Eastman plasticizers an excellent choice for inks in food packaging applications, decorative decals, screen printing on apparel, and automotive instrument panels. With excellent extraction resistance and weatherability, our plasticizers are also well suited for exterior graphics.

Admex 760
Admex 770
Benzoflex 354
Benzoflex 9-88 SG
Eastman 168
Eastman Effusion
Eastman Triacetin
Fabric and furniture upholstery

Furnishing flexibility and resilience

Eastman’s specialty plasticizers offer performance properties from low-viscosity and low-temperature flexibility to superior permanence. Plasticizers are used in fabric to make furniture and automotive upholstery more comfortable, resilient, and resistant to becoming brittle over time. Eastman’s polymeric solutions are available in low and medium molecular weights and are characterized by low odor and light color.
Flexible PVC

Setting the new standard

Eastman 168™ non-phthalate plasticizer has been safely used in PVC for generations. With proven performance as an alternative to DOP/DEHP and DINP, Eastman 168 can be used for a wide variety of flexible PVC applications. In many cases, our non-phthalate solutions can be a drop-in replacement for traditional phthalates in your manufacturing process.
Flooring and interior surfaces
A step above the rest

Whether you produce PVC-backed carpet, resilient flooring, luxury vinyl tile, or vinyl composite tile, Eastman has the plasticizer that meets your needs. In addition to an array of general-purpose solutions, we offer an extensive portfolio of specialty non-phthalate plasticizers—including fast fusers, viscosity reducers, and low-VOC options.

Eastman plasticizers can also help protect your bottom line. Eastman Effusion™ plasticizer, for example, is a high-solvating, fast-fusing solution that offers improved efficiency and lower fusion temperatures—creating increased line speeds and wider processing windows that can reduce your energy costs.

Benzoflex 1046
Benzoflex 2088
Benzoflex 284
Benzoflex 9-88
Benzoflex RF-532
Eastman 168
Eastman 425
Eastman Effusion
Eastman TXIB
Food contact
Serving up safe choices

Perhaps no market is more challenged by emerging legislative demands than the materials used in food contact applications. Manufacturers looking for safe alternatives are increasingly turning to Eastman for answers. With clean toxicological and regulatory profiles, including FDA and EFSA approvals, our non-phthalate solutions are especially suited for many food contact applications, such as food wrap film, PVC gloves, hoses and tubing, conveyor belting, and metal cap and closure liners. And in most cases, a solution such as Eastman 168™ SG non-phthalate plasticizer can be a near drop-in replacement for DOP and DINP.

Admex 334F
Eastman 168 SG
Eastman DOA
Eastman DOA kosher
Eastman Triacetin
Eastman Triacetin (food grade)
Eastman Triacetin (kosher, food grade)
Eastman TXIB
Gaskets, hoses, and tubing

Innovation in the pipeline

Effective plasticizers are not only essential for keeping hoses, gaskets, and tubing pliable; they’re also important in the extrusion manufacturing process. Eastman has non-phthalate solutions with excellent low-temperature flexibility, resistance to extraction by soapy water, and excellent nonmigration properties. And, as always, our worldwide manufacturing and distribution network helps keep your products flowing.

Admex 6187
Eastman 168
Eastman TOTM
Medical
Vital flexibility

Eastman has a long history of producing innovative plasticizers for medical. Today, our products improve the flexibility, durability, longevity, and utility of medical packaging, devices, and materials worldwide. You’ll find our plasticizers throughout hospital corridors, in pharmaceutical labs, and in doctors’ offices—from pliable blood bags and tubing to safer floor mats, from handheld devices to coated fabrics.

A sensitive-grade solution

A non-DEHP solution designed specifically for the extensive testing and qualifications within the medical market, Eastman 168™ SG plasticizer is held to higher purity standards—with more comprehensive testing and documentation. We subject the plasticizer to the same analysis manufacturers are required to do, including:

- United States Pharmacopeial Convention (USP) Class VI certification
- European Union directives
- ISO 10993 standards
- Hemocompatibility testing according to ISO 10993-4
Peroxides

Reacting to demands for more efficiency

Usually found in applications using unsaturated polyesters, plasticizers work as solvents or carriers that deliver peroxides to the end-use product. Many industrial formulations use MEKP (methyl ethyl ketone peroxide) to initiate cross-linking reactions for applications such as gel coats for boats. Often, MEKP is diluted with a suitable diluent or carrier. Eastman TXIB™ formulation additive is frequently chosen as an effective diluent for MEKP because of its value as a non-phthalate, low-viscosity diluent with a low freezing point that contributes to easier handling.
Polyurethane

Flexibility and strength for a versatile market

In today’s markets, polyurethane excels in a growing number of products. And Eastman plasticizers are making polyurethane more versatile than ever before.

Our plasticizers help regulate the rheological, thermal, and mechanical properties in polyurethane, making it more adaptable, more pliable, and more extrudable in a variety of applications. And their lower viscosity allows easier processing and higher filler loading, which in turn enable a cost savings over the base polymer alone.

Benzoflex 9-88
Benzoflex 9-88 SG
Benzoflex TPU-405
Eastman TXIB

Polyurethane applications
- Cast polyurethane
- Polyurethane adhesives
- Polyurethane sealants
**PVC plastisols**

*Highly efficient solutions*

When formulating PVC plastisols, your next tool should be Eastman’s plasticizers. With a long history of proven success, we have the broadest line of plasticizers in the industry. The excellent solvating characteristics of these plasticizers allow fast processing of vinyl compositions. In both dry-compounded and plastisol-based PVC applications, they serve as fast fusers, delivering lower processing temperatures and lower volatility.

As an alternative to benzoate plasticizers, Eastman Effusion™ plasticizer provides lower plastisol viscosity and excellent low-temperature flexibility in PVC formulations.

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**PVC plastisol applications**

- Coatings
- Textile printing inks
- Plastisol sealants
- Plastisol adhesives
- Plastisol molding compounds
- Plastisol foams

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Admex 6187
Benzoflex 131
Benzoflex 181
Benzoflex 2-45
Benzoflex 2088
Benzoflex 284
Benzoflex 354
Benzoflex 50
Benzoflex VP-953
Eastman Effusion
Eastman 168
Eastman 425
Eastman TXIB
Eastman VersaMax Plus
The aim is bond

Sealants and caulks need plasticizers to perform. However, regulatory pressures on phthalates and product formulations have forced sealant and caulk formulators to find alternatives to traditional plasticizer options. Eastman has the widest range of benzoate plasticizers in the industry, providing an optimal balance of performance and value. For example, Benzoflex™ LC-531 plasticizer was designed to pass the stringent performance requirements outlined in ASTM C-920 and ASTM C-834, as well as in nonspecification caulks. Our plasticizers promote better low-temperature properties, allow for higher filler loads, optimize adhesion to various substrates, and deliver flexibility and superior performance for sealants and caulks.

Benzoflex 2088
Benzoflex 50
Benzoflex 9-88 SG
Benzoflex 9-88
Benzoflex LC-531
Benzoflex PS-507
Benzoflex VP-953
Eastman TXIB
Eastman VersaBond

Sealants and caulks
applications
• Latex
• Polyurethane
• PVC plastisol
• Polysulfide
Toys and child care
A growing market

Eastman was among the first companies to develop alternative plasticizers for making PVC flexible. For nearly 40 years, Eastman 168™ non-phthalate plasticizer has offered a safe alternative to phthalates and is commonly found in children’s toys and other articles designed for children. With a clean toxicological profile, manufacturers can play in expanded markets, knowing that their choice in plasticizer is suitable for sensitive applications.

Benzoflex VP-953
Eastman 168
Eastman 168 SG
Eastman TXIB
Wire and cable
Solutions for a connected market

Flexible PVC is widely used in protective materials or insulation of wires and cables used in electronics, appliances, and communications systems. Without plasticizers, these critical products would become brittle and cracked, resulting in safety hazards. With innovative Eastman general-purpose and specialty plasticizers, manufacturers can produce wire and cable sheathing with the necessary flexibility and longevity.

Admex 6187
Eastman 168
Eastman TOTM
**Eastman non-phthalate plasticizers A to Z**

**Proven performance**

Our product breadth and ability to develop novel molecules and new products can give you a long-lasting competitive advantage. Eastman’s readily available plasticizers provide good fusion profiles, excellent low-temperature flexibility, and excellent heat stability for both general-purpose and specialty applications.

Eastman’s top-notch technical and field-based support teams offer analytical testing, formulation know-how, and reformulation expertise to help you stay ahead of trends and to create new competitive advantages. Moreover, we have the resources, resolve, and financial and technical strength to continue to lead the industry . . . and enable your success every day.

- Admex™ 334F plasticizer
- Admex™ 525 plasticizer
- Admex™ 6187 plasticizer
- Admex™ 6995 plasticizer
- Admex™ 760 plasticizer
- Admex™ 770 plasticizer
- Benzoflex™ 1046 plasticizer
- Benzoflex™ 131 plasticizer
- Benzoflex™ 181 plasticizer
- Benzoflex™ 2-45 plasticizer
- Benzoflex™ 2088 plasticizer
- Benzoflex™ 284 plasticizer
- Benzoflex™ 352 plasticizer
- Benzoflex™ 354 plasticizer
- Benzoflex™ 50 plasticizer
- Benzoflex™ 9-88 plasticizer
- Benzoflex™ 9-88 SG plasticizer
- Benzoflex™ LA-705 plasticizer
- Benzoflex™ LC-531 plasticizer
- Benzoflex™ PS-507 plasticizer
- Benzoflex™ RF-532 plasticizer
- Benzoflex™ TPU-405 plasticizer
- Benzoflex™ VP-953 plasticizer
- Eastman 168™ non-phthalate plasticizer
- Eastman 168™ SG non-phthalate plasticizer
- Eastman 425 plasticizer
- Eastman DOA plasticizer
- Eastman DOA plasticizer, kosher
- Eastman DOM plasticizer
- Eastman Effusion™ plasticizer
- Eastman TEG-EH plasticizer
- Eastman TOTM plasticizer
- Eastman Triacetin
- Eastman Triacetin, food grade
- Eastman Triacetin, kosher, food grade
- Eastman TXIB™ formulation additive
- Eastman VersaBond™ plasticizer
- Eastman Versafix™ plasticizer
- Eastman VersaMax™ Plus plasticizer

To find out more about the Eastman advantage, visit www.EastmanPlasticizers.com.
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