



The Chemical Company

## Product Information

# Palatinol® DPHP, Hexamoll® DINCH® and Palatinol® TOTM Plasticizers

Plasticizers are additives that increase the softness of the material to which they are added. They are commonly used with polyvinyl chloride (PVC) to make flexible vinyl, a material that is being used in a variety of applications, such as wire & cable jacketing and insulation, extruded or molded parts used in flooring or as floor coverings, coated fabrics or decorative laminates and artificial leather used in seat upholstery. Furthermore, plasticizers are part of adhesive formulations. They also are being used as solubilizers for dyes.

Palatinol DPHP plasticizer is a high molecular weight, regulatory compliant phthalate plasticizer that is safe for use based on its physical and toxicological properties. Hexamoll DINCH non-phthalate plasticizer was especially developed for sensitive applications. It has been reviewed by many regulatory authorities worldwide and has received approvals for use in medical devices, food contact materials, and toys. BASF also produces specialty plasticizers, such as linear phthalates, trimellitates, and polymeric plasticizers in order to meet customer requirements, such as high or low temperature performance and low migration.

### Palatinol DPHP

- High molecular weight phthalate plasticizer
- No hazard classification
- Safe for use based on physical and toxicological properties
- Physical and performance characteristics comparable to DIDP
- Favorable (low) fogging characteristics

### Hexamoll DINCH

- Non-phthalate plasticizer
- Developed for sensitive applications based on exposure and toxicological issues
- Well tested with no relevant hazards
- Improved low temperature performance as compared to dioctyl phthalate (DOP) and diisononyl phthalate (DINP)
- Phthalate replacement possible with only minor formulation and processing adjustments

### Palatinol TOTM

- Non-phthalate plasticizer
- Suitable for UL 90°C and 105°C insulation for wire and cable applications
- Low volatility
- Resistant to extraction by soapy water

## Sustainable solutions for PVC, adhesive and other aerospace applications

Hexamoll DINCH and Palatinol DPHP plasticizers were among the first products registered under the Registration, Evaluation, Authorization and Restriction of Chemical Substances (REACH) directive of the European Community Regulation on Chemicals and have no hazard classifications in North America, Europe, or Asia. These two products and others in the BASF portfolio make it possible for customers to meet their current and future global performance and regulatory requirements.

Palatinol DPHP is a decyl (C10) phthalate plasticizer produced from propyl heptyl alcohol (2PH). In terms of physical and performance characteristics, it is comparable to other phthalates made from isononyl and isodecyl alcohols such as DINP and DIDP. Palatinol DPHP plasticizer has favorable fogging characteristics and affords low fog artificial leather as well as adhesives with increased fogging resistance. In wire

and cable applications, C10 phthalates, such as Palatinol DPHP plasticizer are suitable for up to UL 80°C rated wire.

Hexamoll DINCH clear, colorless plasticizer was developed for use in applications that are particularly sensitive based on exposure and toxicological issues. It is suitable for use with PVC and other polar polymers, and it is compatible with all of the monomeric plasticizers commonly used in PVC. In most cases, only minor formulation and processing parameter adjustments are required to process flexible PVC compounds. Compared to DOP and DINP, Hexamoll DINCH offers improved low temperature performance. In plastisol applications, it offers lower initial viscosity and better viscosity stability.

Palatinol TOTM plasticizer provides desirable properties in vinyl applications which require good plasticizer/resin compatibility, low volatility, resistance to extraction by soapy water and good electrical properties.

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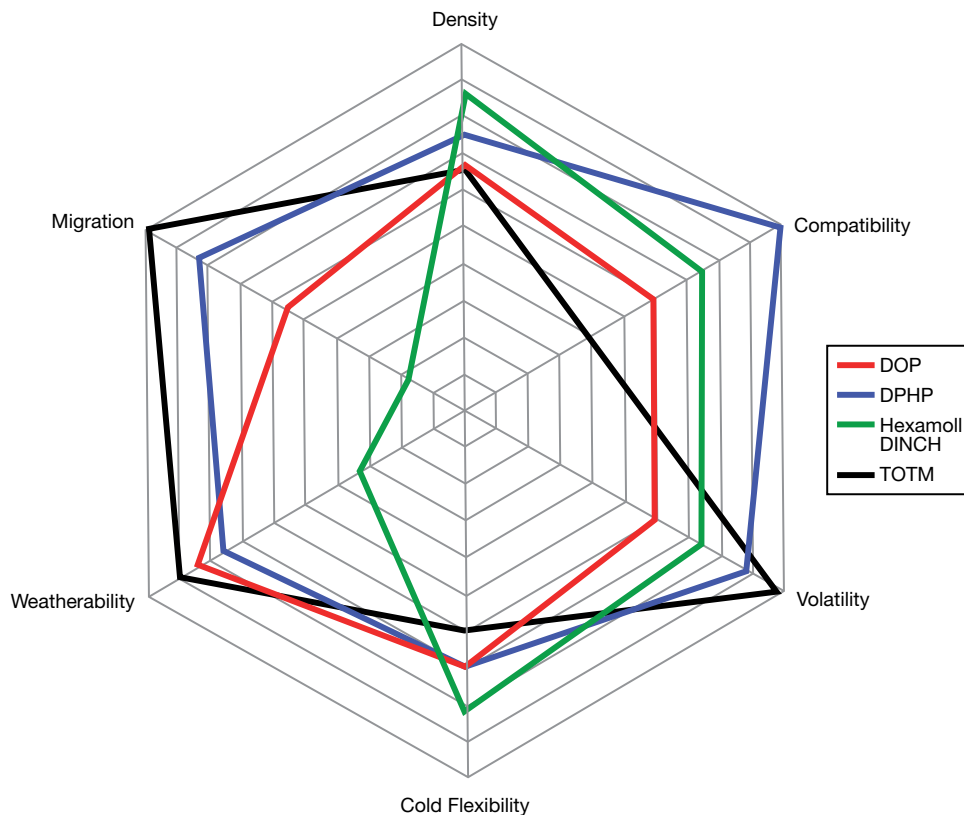
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## Attractive performance profiles

BASF's Palatinol DPHP, Hexamoll DINCH and Palatinol TOTM plasticizers offer attractive characteristics in your potential application.

Six performance properties of plasticizers in typical formulations are displayed to the right. The further out the coordinate on a respective axis, the more favorable a characteristic. While DPHP performs very well in all of the key properties, Hexamoll DINCH excels in terms of low density and high cold flexibility. TOTM shows the best performance in terms of migratory behavior, volatility, and weatherability. The DOP data are added for comparison.

BASF's Palatinol DPHP, Hexamoll DINCH and Palatinol TOTM plasticizers provide the design engineer sustainable options to adjust properties of vinyl, adhesive, and other formulations.



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