

Technical Information

TI/N-CPN/IP Hexamoll® DINCH
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Petrochemicals Plasticizers



Hexamoll® DINCH

Safe plasticizer for PVC and other polar polymers. Versatile non-phthalate plasticizer specially intended for use in applications that involve human contact.

Chemical Name 1,2-Cyclohexane dicarboxylic acid, di-isononyl ester

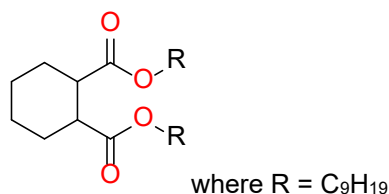
BASF Registered Name Hexamoll® DINCH

CAS No. 474919-59-0 (USA)
166412-78-8 (Outside USA)

Molecular Weight 424.7

Formula C₂₆H₄₈O₄

Molecular Structure



Product Specifications

	Value	Test Method
Specific gravity @ 25°/25 °C	0.942 - 0.952	ASTM D-4052
Ester content, % by weight (minimum)	99.5	ASTM D-3465
Acid Number, mg KOH/g (maximum)	0.07	ASTM D-1045
Water, % by weight (maximum)	0.1	ASTM E-1064
Color, Pt-Co Units (APHA, maximum)	40	ASTM D-5386
Suspended Matter	COLSFFM*	visual
Phthalate content (% maximum)	0.01	UV-BASF

*Clear Oily Liquid Substantially Free of Foreign Material

Typical Physical Properties

The following data were measured in the BASF Corp. laboratory. They do not represent any legally binding guarantee of properties for our sales product.

	Value
Density @ 25 °C, g/cm ³	0.945
Vapor Pressure @ 20 °C, mbar	< 0.01
Pour point, °C	-54
Solubility @ 25 °C in water, mg/L	< 0.02
Dynamic viscosity	
@ 20 °C, cP	52
@ 40 °C, cP	20
Flash point (COC), °C	224
Odor	mild characteristic

Description

Hexamoll® DINCH is a clear, colorless plasticizer that was developed for use in applications that are particularly sensitive based on exposure and toxicological issues. It is recommended for use in medical products, toys, and food packaging applications.

Hexamoll® DINCH is suitable for use with PVC and other polar polymers. 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.

Safety

Hexamoll® DINCH does not require special handling. Handle in accordance with good industrial hygiene and safety practices. Avoid eye contact by wearing personal protective equipment. If eye contact occurs, wash with flowing water and contact physician.

Avoid repeated or prolonged skin contact. Avoid breathing vapors by providing adequate ventilation.

Always refer to the Safety Data Sheet (SDS) for detailed information on safety.

Storage and Handling

Hexamoll® DINCH can be stored in tanks and drums constructed from normal carbon steel, e. g. A 283 grade. If severe demands are imposed on the product quality, we recommend that it be stored in tanks constructed from stainless steel, e. g. AISI TP 316 Ti (German steel No. 1.4541) or aluminum (AlMg₃).

It is recommended that steps be taken to ensure the exclusion of atmospheric moisture, e. g. by storing under a blanket of dry nitrogen, as otherwise the product quality may deteriorate, e. g. the water fraction may rise, or the Hexamoll® DINCH may be discolored by rust in normal steel tanks.

Drums containing the product should be kept tightly closed in a well-ventilated place.

Hexamoll® DINCH can be stored for one year in its original packaging at temperatures below 40 °C, if moisture is excluded. Only dedicated equipment should be used to discharge this product.

Packaging

Hexamoll® DINCH is available in bulk, tank trucks or rail cars.

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Note

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