

DI ISO NONYL PHTHALATE (DINP)

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Primary plasticizer for PVC and PVC copolymers

Chemical Nature

Phthalic acid ester of C₉ alcohol

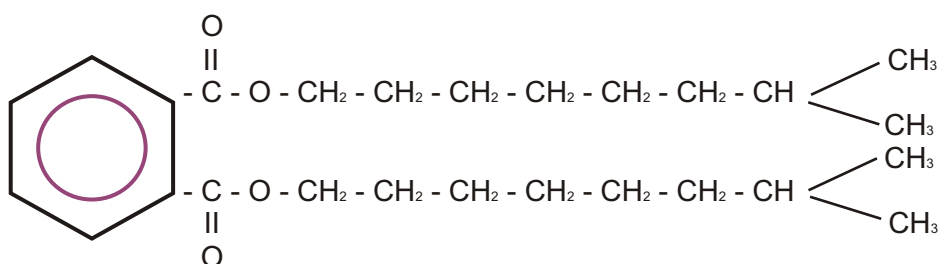
Chemical Name :- Di Iso Nonyl Phthalate

Trade Name :- DINP

Molecular Formula :- C₂₆H₄₂O₄

Molecular Weight :- 418

Molecular Structure :- C₂₆H₄₂O₄



CAS Number :- 28553-12-0

UN. NO :-

EINECS NO :- 249-079-5

Specification

Characteristics

Unit

Test Method

Value

Colour	HU	ASTM-D-1045-86	20 max.
Volatile Loss (130°C/3 Hrs)	wt. %	KLJTM	0.10max.
Ester Value	mg KOH/g	ASTM-D-1045-86	265 – 270.
Acidity	wt. %	ASTM-D-1045-86	0.010 max.
Moisture	wt. %	ASTM-E-203	0.10 max.
Specific Gravity (27°C)	-	ASTM-D-1045-86	0.970–0.976.
Ester content	wt. %	ASTM-D-1045-86	99.50 min.
Heat Stability (180°C/2 Hrs)	HU	ISI-9591-96	No Change.
Acidity after heat treatment	wt. %	ASTM-D-1045-86	0.03.
Plasticizing Esters by GC	% by area	KLJTM	99.50 min.
Residual alcohol	% by area	KLJTM	0.10 max.

Typical Properties

Volume Resistivity	Ohmcm	KLJTM	2.5±0.2X10 ¹¹
Boiling Point @ 7 mbar	°C	lit.	250.
Pour point	°C	lit.	- 48.
Viscosity at 20°C	cp	KLJTM	79±3.
Refractive Index (27°C)	-	ASTM-D-1045-86	1.484–1.489.

Total Solution in Plasticizers

KLJ Group

Trust built on performance



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Properties

DINP is almost colourless and odourless oily liquid, free of foreign materials which is slightly soluble in water (0.285mg/L at 24 C^o) but soluble in alcohols, hexane etc. It is miscible and compatible with all the monomeric plasticizers of PVC compounding.

Application

Around 95% of **DINP** is used in PVC as a plasticizer. More than half of the remaining 5% is used in the production of polymers other than PVC (e.g.rubbers). The remaining **DINP** used in non-polymer application including anticorrosion paints, anti-fouling paints, lacquers, inks, adhesives and sealants.

DINP is a monomeric primary plasticizers of medium molecular weight and fine performance. It has been developed to fulfill the need for an economical plasticizer in formulation which require very low volatility and good permanence characteristics. This products is widely used in vinylic compounds including wires, cables and plastisols.

Plasticizing Efficiency

1.06

Compatibility with Secondary Plasticizers

Limited in comparision of DOP.

Packing & Storage

DINP is packed in 200/225 kg iron drum / HDPE drum, 20 - 22 MT Flexi tank / ISO tank / road tanker. It is stored in tightly closed container, in a cool, dry, ventilated area.

Shelf Life

Original characteristics remain intact for 24 months, if kept in recommended storage.

Safety

The MSDS can be provided on request.

Disclaimer

The data contained in this publication are based on our current knowledge and experience. During processing, there are so many factors which may affect the application part of **DINP**, so these data neither imply any guarantee of certain properties, nor the suitability of the product for the specific purpose. Any data given in this publication may change without prior information and do not constitute the agreed quality of our product.

[Total Solution in Plasticizers](#)