



KANATOL - 1001

DI ISO DECYL PHTHALATE (DIDP)

Primary plasticizer for PVC and PVC copolymers

Chemical Nature

Phthalic acid esters of C₁₀ alcohols.

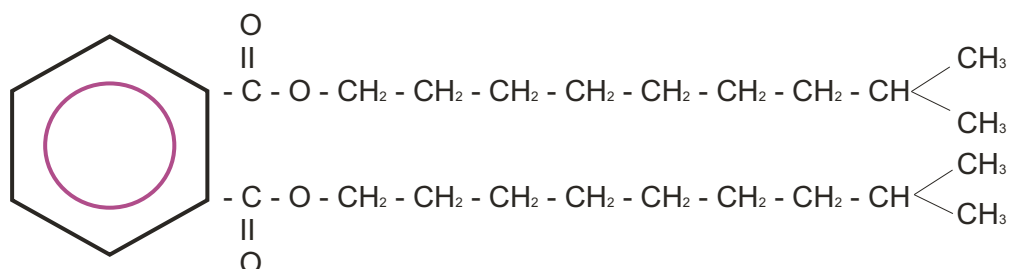
Chemical Name :- Di Iso Decyl Phthalate.

Trade Name :- DIDP

Molecular Formula :- C₂₈H₄₆O₄

Molecular Weight :- 446

Molecular Structure :- C₆H₄(C₁₀H₂₁O₂)₂



CAS Number :- 26761-40-0

UN. NO :-

EINECS NO :- 247-977-1

Specification

Characteristics

Unit

Test Method

Value

Colour	HU	ASTM-D-1045-86	20 max.
Volatile Loss (130°C/3 Hrs)	wt. %	KLJTM	0.10 max.
Ester Value	mg KOH/g	ASTM-D-1045-86	249–254.
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	0.960–0.967.
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	4.5±1.0X10 ¹¹ .
Boiling Point @ 3.5mmHg	°C	lit.	255.
Pour point	°C	lit.	-48.
Viscosity at 20°C	cp	KLJTM	108 ± 2.
Flash Point (COC)	°C	KLJTM	232.
Refractive Index (27°C)	-	ASTM-D-1045-86	1.483-1.486.

Total Solution in Plasticizers



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Properties

DIDP is a clear, colourless, and odourless liquid, free of foreign materials. It is soluble in most organic solvent and in soluble in water.

Application

Around 95% of DIDP 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 DIDP used in non-polymer application including anticorrosion paints, anti-fouling paints, lacquers, inks, adhesives and sealants.

In wire and cable formulation DIDP finds wide use in 75°C THW building wire compounds and in 80°C and 90°C appliance wire insulation.

In plastisol application, DIDP provide good initial viscosities and Excellent viscosity stability.

Plasticizing Efficiency 1.10

Compatibility with Secondary Plasticizers

Very limited in comparison of DOP.

Packing & Storage

DIDP is packed in 200/225 kg iron drum / HDPE drum, 20 - 22 MT in 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 TOTM, 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 donot constitute the agreed quality of our product.

Total Solution in Plasticizers