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"Dutch Boy"
PLASTICIZER
NL A-20

Di-2-ethylhexyl Phthalate



DUTCH BOY CHEMICALS

A Product Development of
NATIONAL LEAD COMPANY

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"Dutch Boy" PLASTICIZER NL A-20

"DUTCH BOY" NL A-20, di-2-ethylhexyl phthalate, is characterized by its high purity and uniformity. It is a clear, almost colorless liquid which has low volatility and is soluble in nearly all of the common organic liquids. NL A-20 is a superior grade of di-2-ethylhexyl phthalate, the best known and most widely used plasticizer for vinyl chloride polymers and copolymers.

Table of Properties

Composition	Di-2-Ethylhexyl Phthalate
Formula	 $C_{20}H_{38}O_4$
Molecular Weight	334.5
Color (SPH 1)	25
Odor	None
Specific Gravity (25°C, 25°C)	0.902
Boiling Point (°C)	252-255 at 9 mm.
Freezing Point (°C)	25
Viscosity (cP) at 25°C	0.90
Refractive Index (25°C)	1.463
Flash Point (°F)	225
Fire Point (°F)	260
Viscosity, centipoise (25°C)	25.5
Weight per Gallon	8.2 lbs.

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Application Properties

MI A-20 has an unusual balance of good properties as a vinyl plasticizer. As the primary plasticizer in vinyl stocks, its heat and light stability are excellent, and it imparts good flexibility, efficiency, extraction resistance, and low temperature properties. The electrical characteristics are outstanding. While it is an obvious advantage to modify MI A-20 with other types of plasticizers to meet special requirements, the excellent general properties of this material are unexcelled.

Uses

Vinyl Film and Sheeting — MI A-20 is an excellent primary plasticizer for calendared vinyl products. It is efficient and persistent at low temperatures, its compatibility is excellent, and its wetting action on solid components is good. Compounds based on MI A-20 have excellent heat and light resistance, and maintain their properties upon exposure to weathering.

Vinyl Electrical Formulations — Vinyl wire and cable coatings, plasticized with di-2-ethylhexyl phthalate, exhibit excellent electrical properties and aging characteristics. MI A-20, because of its very high purity and uniformity, imparts considerably better insulation properties than the average diethyl phthalate.

Vinyl Organosols and Plastisols — In all types of vinyl dispersion resin systems, MI A-20 provides a fine balance of good properties at reasonable cost. Good initial physical characteristics are combined with excellent retention on aging. Plastisols based on MI A-20 have low initial viscosity and very good storage stability.

Other Resinous Systems — MI A-20 is compatible with a wide range of resins other than the vinyls. It has excellent plasticizing action in synthetic rubber compounds, with very good aging characteristics. MI A-20 is also useful in lacquers and other protective coatings, especially where hot spots or baking facilities require low volatility and permanence. It is suggested for use in ethyl rubbers, polybutenes and natural rubber compositions.

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