



Finsolv® TN

INCI Name: C₁₂₋₁₅ Alkyl Benzoate

CAS No.: 68411-27-8 EINECS No.: 270-112-4

Finsolv® TN

Finsolv® TN is a unique non-toxic, non-irritating, non-sensitising, noncomedogenic and practically odourless emollient ester. It is water insoluble, readily emulsifiable and possesses the following properties and attributes:

- Imparts a dry lubricating feel even in the presence of large amounts of mineral oil or petrolatum ("deoils" mineral oil and "degreases" petrolatum)
- Superior solubiliser of lipophilic cosmetic raw materials, especially sunscreen agents and volatile silicones
- High positive spreading coefficient
- Anti-tack agent, especially in antiperspirant formulations
- Wetting agent and auxiliary suspending agent for water insoluble powdered products
- Stable over a wide pH range

For a more complete listing of the multifunctionality of Finsolv®TN, see Table I.

These multifunctional properties lend themselves to formulating Finsolv® TN in a variety of cosmetic and personal care products as well as sun care and OTC skin products, all possessing a dry (non-greasy) cosmetically elegant emollient feel.

Examples of applications of Finsolv® TN in personal care products are listed in Table II.

Finsolv® TN is compatible with commonly used plastic containers except for polystyrene and styrene copolymers such as SAN (styrene/acrylonitrile copolymer).

Product Specification (Not intended for use in preparing specifications)

Appearance	Clear, almost colourless liquid
Odour	Very mild; practically odourless
Boiling point	300°C
Pour point	14°C (approx.)
Freezing point range	-3 to -12°C
Flash point	163 – 166°C
Specific gravity @ 25°C	0.928
Refractive index @ 20°C	1.485
Required HLB	12 – 13
Surface tension dynes/cm @ 15°C, (Du Nuoy)	31.5
Interfacial tension in water dynes/cm @ 15°C	7.13
Spreading coefficient dynes/cm @ 15°C	34.5
Viscosity, Brookfield RV #1 Spindle, 100 RPM cps @ 21°C	38
Colour, APHA	10
Saponification value, (mg KOH/g)	180
Acidity, mg KOH/g	<0.10
Moisture, %	<0.10

Table I

Multifunctionality of Finsolv® TN	
• Emollient	• Solubiliser
• Sunscreen vehicle	• Plasticiser
• Hair conditioner	• Anti-tack agent
• Auxiliary suspending agent	• Dye leveling agent and dye carrier
• Superfating agent	• "Deoiler"/"Degreaser"
• Lubricant	• Binder in pressed powders
• Wetting agent for powders	• Gloss agent

Table II

Personal care products/applications of Finsolv® TN	
• Sunscreen/suntan preparations	• Deodorants/antiperspirants
• Emollient creams	• Hand and body creams and lotions
• Body and massage oils	• Alcoholic lotions
• Cleansing creams	• Make-up and nail products
• Foundation lotions	• Lipsticks/lip glosses/lip balms
• Eye make-up and removers	• Peelable face masks
• Bath and after bath products	• Shaving preparations
• Pre-electric shave lotions	• Colognes and perfumes
• Soaps, combos, syndets	• Hair care products
• Hair dye leveling agent	• Body and baby powders
• Foot care products	• After shave lotions/balms

Solubility, 10g Solute/90G Finsolv® TN

Acetone	Soluble
Beeswax	Soluble (Soluble hot)
Carbitol	Dispersible
Castor oil	Soluble
Ethyl Acetate	Soluble
Ethanol	Soluble
Glycerin	Insoluble
Isopropanol	Soluble
Isopropyl Myristate	Soluble
Isopropyl Palmitate	Soluble
Lanolin	Soluble
Paraffin wax	Dispersible (Soluble hot)
Propylene Glycol	Insoluble
Vegetable oils	Soluble
Volatile Silicones	Soluble (in all proportions)

Solubility comparison of commonly used preservatives, bactericides and antioxidants

1g/100ml Solvent	Finsolv® TN	IPM
Methylparaben	Soluble	Soluble
Propylparaben	Soluble	Soluble
Butylparaben	Soluble	Soluble
Captan	Soluble	Insoluble
DMDM Hydantoin	Insoluble	Insoluble
<i>p</i> -Chloro- <i>m</i> -Xylenol	Soluble	Soluble
BHA or BHT	Soluble	Soluble
Propyl Gallate	Soluble	Insoluble



For further information, please email your region:
america-ac@innospecinc.com, aspac-ac@innospecinc.com, emea-ac@innospecinc.com
www.innospecinc.com

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