



**IOI OLEOCHEMICAL**

**PHARMA**

# **MIGLYOL<sup>®</sup> 840**

## **TECHNICAL DATA SHEET**

**Ph. Eur. (current version):**

**Propyleneglycol Dicaprylocaprate**

**USP (current version):**

**Propylene Glycol Dicaprylate/Dicaprate**

## DESCRIPTION

MIGLYOL® 840 is an ester of saturated plant derived caprylic and capric fatty acids with propylene glycol.

MIGLYOL® 840 is a clear, virtually colourless liquid of neutral odour and taste.

## APPLICATION

### Parenteral applications

i.m./s.c: Carrier and solvent.

### Topical therapeutics

Psoriasis Treatment  
and Antipruritics:

Readily absorbent, scale-detaching and keratin softening oil component, particularly in combination with Vitamin A.

Ointments:

Non-oxidizing, absorption-promoting, non-occlusive oil component with excellent spreadability.

## CHEMICAL AND PHYSICAL PROPERTIES

Tests	Values	Typical values	Units	Methods
Acid value	max. 0.2	0.03	mg KOH/g	Ph. Eur. 2.5.1
Hydroxyl value	max. 10	1	mg KOH/g	Ph. Eur. 2.5.3
Water	max. 0.1	0.02	%	Ph.Eur. 2.5.12
Viscosity at 20 °C	9 – 12	10	mPa·s	Ph. Eur. 2.2.9
Colour	max. 50	14	APHA	ISO 6271
Caprylic acid (C <sub>8:0</sub> )	50.0 – 80.0	69	%	Ph. Eur. 2.4.22
Capric acid (C <sub>10:0</sub> )	20.0 – 50.0	31	%	Ph. Eur. 2.4.22

**MIGLYOL® 840 fully complies with the requirements of the current Ph. Eur. monograph "Propylene Glycol Dicaprylocaprate".**

Above mentioned tests are a selection of relevant parameters and do not represent the complete current sales specification.



MIGLYOL® 840 is a propylene glycol diester of saturated plant fatty acids with chain lengths of C<sub>8</sub> and C<sub>10</sub>. Therefore it has excellent emollient properties.

MIGLYOL® 840 is very pure because of its carefully selected raw materials. As a result of tightly controlled manufacturing process microorganisms are practically absent because of very low levels of water, i.e. microbials cannot sustain. It is free of additives such as antioxidants, solvents and catalyst residues.

The very low viscosity of MIGLYOL® 840 makes it suitable as a carrier oil for s.c. injections in humans or s.c. injections in veterinary preparations.

MIGLYOL® 840 has the following advantages compared to edible oils:

- very good solvent for drugs.
- low in impurities (as a result of production according to GMP)
- high stability against oxidation
- liquid at 0 °C.
- excellent spreadability on the skin due to the very low viscosity and good skin absorption.
- does not inhibit skin-respiration.
- excellent penetration-promoting, emollient and skin-smoothing properties

MIGLYOL® 840 exhibits a high storage stability and no rancidity risk because it is free from unsaturated components. It shows a very good skin compatibility.

### **Solubility**

MIGLYOL® 840 is soluble in hexane, toluene, diethyl ether, ethyl acetate, acetone, isopropanol and ethanol 96%. It is miscible in all ratios with natural oils and it is not soluble in water and glycerol.

## ADDITIONAL INFORMATION

Propylene glycol esters of edible fatty acids in food comply with CFR 21, § 172.856 and are classified as GRAS.



## PACKAGING UNITS

HDPE IBC containers of 900 kg net, steel drums with an inner lacquer lining of 180 kg net.

### Material compatibility instructions and additional information

MIGLYOL 840 is a good solvent, like other low-viscosity hydrophilic ester oils. Some plastics, especially those containing plasticizers, tend to turn brittle or to expand.

**Polystyrene (PS) and Poly Vinyl Chloride (PVC) are no suitable packaging materials.**

Be careful when selecting resistant seal closure material (e.g. VITON® is recommended) and be careful of sufficient pull power because MIGLYOL 840 has a very high tendency to migrate.

### The following packaging materials are recommended:

- Low pressure polyethylene (High Density Polyethylene = HDPE)
- Poly tetrafluor ethylene (PTFE)
- Poly Propylene (PP)
- Metal (stainless steel)
- Glass

## HANDLING AND SHELF LIFE

If stored longterm in original tightly closed containers, dry, protected from light and moisture and below 25°C, the shelf life then is at least three years.

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