




MIGLYOL[®] 810, 812

INCI: Caprylic/Capric Triglyceride

-  Non-greasy emollient
-  Medium to low spreadability
-  Good absorption on skin

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1. Description:

MIGLYOL® neutral oils are clear, slightly yellowish esters of saturated coconut and palm kernel oil-derived caprylic and capric fatty acids and glycerin.

MIGLYOL® 810 and MIGLYOL® 812 are triglycerides of the fractionated C₈ and C₁₀ plant fatty acids. They only differ in their C₈/C₁₀-ratio.

MIGLYOL® 810 has a higher C₁₀-content, therefore its viscosity and cloud point is lower.

The fatty acids used for the production of MIGLYOL® 810 and MIGLYOL® 812 comply with CFR** 21, § 172.860 and are classified as GRAS**.

MIGLYOL® 810 and MIGLYOL® 812 are of neutral odor and taste. They are very pure because of their carefully selected raw materials. As a result of tightly controlled manufacturing process microorganisms are practically absent because of very low water levels. They are free of additives such as antioxidants, solvents and catalyst residues.

They have a high stability against oxidation and are liquid at 0°C.

*** JCIC = Japanese Cosmetic Ingredients Codex ; ** BP = British Pharmacopoeia; ** CFR = Code of Federal Regulations; ** DAB = Deutsches Arzneibuch; ** GRAS = Generally Recognized As Safe; ** JEPT = Journal of Environmental Pathology and Toxicology; ** JPE = Japanese Pharmaceutical Excipients ; ** DMF = Drug Master File*

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2. Chemical and Physical Properties:

Tests	Value		Unit
	MIGLYOL® 810	MIGLYOL® 812	
Clarity and opalescence	complies	complies	
Coloration	complies	complies	
Acid value	max. 0.1	max. 0.1	mg KOH/g
Iodine value	max. 0.5	max. 0.5	mg I/100 mg
Saponification value	335 – 355	325 – 345	mg KOH/g
Peroxide value	max. 1.0	max. 1.0	mequi O/kg
Hydroxyl value	max. 5	max. 5	mg KOH/g
Color #	max. 100	max. 100	APHA
Water	max. 0.1	max. 0.1	%
Refractive index	1.448 – 1.451	1.449 – 1.451	n _{20D}
Density at 20°C	0.94 – 0.95	0.94 – 0.95	g/cm ³
Viscosity at 20°C	27 – 33	27 – 33	mPa·s
Alkaline reactive substances	max. 0.15	max. 0.15	ml 0.01N HCl/2.00g
Heavy metals	max. 10	max. 10	mg/kg
Total ash	max. 0.1	max. 0.1	%
Unsaponifiable matter	max. 0.3	max. 0.3	%
Caproic acid (C6:0)	max. 2.0	max. 2.0	%
Caprylic acid (C8:0)	65.0 – 80.0	50.0 – 65.0	%
Capric acid (C10:0)	20.0 – 35.0	30.0 – 45.0	%
Lauric acid (C12:0)	max. 2	max. 2	%
Myristic acid (C14:0)	max. 1.0	max. 1.0	%

For better differentiation the colour is expressed as APHA. The limit of max. 100 is far below the limit of the Y3 reference solution as indicated in the Ph.Eur. 2.2.2, method I.

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3. Application:

MIGLYOL® 810 and MIGLYOL® 812 are soluble at 20°C in the following solvents: hexane, toluene, diethyl ether, ethyl acetate, acetone, isopropanol and ethanol 96%.

They are miscible in all ratios with paraffin hydrocarbons and natural oils. MIGLYOL® 810 and MIGLYOL® 812 are not soluble in water and glycerol.

Cosmetic Functions:

MIGLYOL® neutral oils have the following advantages in comparison to natural oils:

-  Excellent spreadability on the skin and good skin absorption.
-  Do not inhibit skin-respiration.
-  Excellent penetration-promoting, emollient and skin-smoothing properties.
-  Very good solubility characteristics.

Skin care cosmetics:

Crems and lotions:	Non-greasy emollient oil components with medium spreadability.
Compared with petrolatum and mineral oil:	They are skin-permeable, do not obstruct natural skin respiration.
Skin, face and baby oils:	Non-oxidizing, penetration-enhancing lipid bases.
Massage oils:	Low-viscosity oil bases with excellent spreadability.
Masks:	Emollient skin care additives.

Decorative Cosmetic:

Make-Up, sticks, mascara:	Dispersing oil component, compatible with pigments.
Makeup remover:	Disperses pigments and acts as a solubilizer.






Cleansing cosmetics:

Two-phase foam baths:	Fat component, readily miscible with natural oils and surfactants.
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Sunscreens:

O/W sunscreen creams:	Oil component, compatible with organic and inorganic filter agents.
W/O sunscreen creams, sunscreen oils:	Water-resistant oil components, less greasy, do not obstruct skin respiration.

Thus MIGLYOL® 810, 812 use is suggested for:

-  Color cosmetics
-  Body care
-  Facial care
-  Hair care
-  Sun care

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4. Formulation Guide:

Basic O/W Cream		517
Phase A		
IMWITOR® 960 K ¹	Glyceryl Stearate SE	3,00
IMWITOR® 988 ¹	Glyceryl Caprylate	2,00
GALENOL 1618 CSP ²	Cetearylalcohol, Sodium Cetearyl Sulfate	3,00
MIGLYOL® 810 ¹	Caprylic/Capric Triglyceride	35,00
ISOFOL 20 P ²	Octyldodecanol	5,00
SOFTISAN® 649 ¹	Bis-Diglyceryl Polyacyladipate-2	3,00
Phase B		
Keltrol F ³	Xanthan Gum	0,30
Preservatives		q.s.
Demin. Aqua	Aqua	ad 100,00
Phase C		
Citric Acid (10 % in water)	Citric Acid	q.s.

Procedure:

1. Dispers the Keltrol F in Phase B.
2. Heat Phase A and B separately to approx. 75-80°C.
3. Add Phase A to Phase B with stirring. Homogenize.
4. Cool with gentle stirring to approx. 30°C. Adjust pH value with Phase C to 7.0.

Supplier References:

¹Cremer Care

²Sasol Germany GmbH

³CP Kelco International Limited

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Hydro Body Lotion – for normal skin		551
Phase A		
IMWITOR 372 P ¹	Glyceryl Stearate Citrate	2,50
IMWITOR 900 K ¹	Glyceryl Stearate	0,50
ISO FOL 20 P ²	Octyldodecanol	2,50
MIGLYOL 812 ¹	Caprylic/Capric Triglyceride	6,00
NACOL 22-98 ²	Behenyl Alcohol	1,00
SOFTISAN 142 ¹	Hydrogenated Coco-Glycerides	3,00
PARAFOL 14-97 ²	Tetradecane	1,00
CremerOIL Sunflower Oil ¹	Helianthus Annuus Seed Oil	2,50
Mais PO4 PH"B" ³	Distarch Phosphate	2,00
Phase B		
Keltrol CG-T ⁴	Xanthan	0,30
Karion FP ⁴	Sorbitol	3,00
CremerGLYC ¹	Glycerine	4,00
Preservatives		q.s.
Demin. Aqua	Aqua	ad 100,00
Phase C		
Citrate Buffer 0,1 mol/l pH 6,4	Citric Acid and Sodium Hydroxide	10,00
Phase D		
Urea	Urea	3,00
Demin. Aqua	Aqua	5,00
Phase E		
Fragrance	Fragrance	q.s.
Phase F		
Sodium Hydroxide 10% in water	Sodium Hydroxide	q.s.

Procedure:

1. Heat Phase A and B separately to approx. 75-80 °C.
2. Add Phase A to Phase B with stirring. Homogenize.
3. Cool Phase A/B with gentle stirring to approx. 40 °C.
4. Add Phase C + E to the emulsion
5. Phase D is solved at room temperature and added to the emulsion. Homogenize with low speed.
6. Cool the emulsion with gentle stirring to room temperature. Adjust pH value with Phase F to 6,0 - 6,5.

Supplier References:

¹ Cremer Care





² Sasol Germany GmbH




³ AGRANA Beteiligungs AG

⁴ CP Kelco International Limited

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-  multitainer with 25 kg
-  drum with 190 kg
-  container with 950 kg
-  road tanker

-  Store at temperature below 25°C
-  Protect from light and moisture
-  Shelf life 3 years

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