



IOI OLEOCHEMICAL

BASIC OLEO

WE DELIVER  
**HIGH  
QUALITY  
BASIC  
OLEO-  
CHEMICALS**



**IOI Oleo GmbH**

Hamburg, Germany | +49 40 28 00 31-0  
BasicOleo@ioioleo.de | www.ioioleo.de

IOI Oleo GmbH





# WHO WE ARE



Selected raw materials, decades of experience and state-of-the-art production plants – it is this combination that makes our basic oleochemicals an ideal basis for your products. As experts in the production of short-chain and polyunsaturated fatty acids, we offer you high-quality basic products for the most diverse applications.

At our **Wittenberge site in Brandenburg**, we produce a broad range of multifunctional ingredients for a large variety of industries including food and feed, cosmetics, aromas and various technical applications.

The products in our WITARIX® brand are based entirely on vegetable raw materials and have excellent characteristics thanks to the particularly gentle production method.

However, we offer you more than just basic oleochemicals suitable for numerous applications. With our extensive know-how and high-performance technical equipment, we are able to guarantee our customers absolute reliability, maximum flexibility and a high level of availability for delivery. When it comes to meeting market requirements, we support you as a competent partner with expertise, creativity and commitment.





## WITARIX® Le

## POLY UNSATURATED FATTY ACIDS

**Name:** Linseed oil fatty acid  
**Cas-No.:** 68424-45-3  
**Customs tariff code:** 3823 19 10  
**Appearance:** Liquid

**Quality:** Low trans, food compliant according to the EU regulation 1881/2006 and feed certified to the QS regulations

**Application:** Food, feed, flavors, paints & coating and other technical applications

### Specification:

CHARACTERISTIC	INSPECTION METHOD	UNIT	SPECIFIED RANGE
Acid value	DGF C-V 2	mg KOH/g	195 - 205
Iodine Value	DGF C-V 11d	g I/100 g	183 - 200
Unsaponifiables	DGF C-III 1 a	%	<= 1.5
Lovibond 5 ¼" yellow	DGF C-IV 4		<= 15
Lovibond 5 ¼" red	DGF C-IV 4		<= 2
Fatty acid C16	DGF C-VI 10 a	%	4 - 8
Fatty acid C18	DGF C-VI 10 a	%	2 - 5
Fatty acid C18:1	DGF C-VI 10 a	%	16 - 26
Fatty acid C18:2	DGF C-VI 10 a	%	14 - 22
Fatty acid C18:3	DGF C-VI 10 a	%	47 - 58
> Fatty acid C18	DGF C-VI 10 a	%	<= 2
Sum trans fatty acids	DGF C-VI 10 a	%	<= 2



## WITARIX® Sb

## POLY UNSATURATED FATTY ACIDS

**Name:** Sunflower oil fatty acid  
**Cas-No.:** 84625-38-7  
**Customs tariff code:** 3823 19 10  
**Appearance:** Liquid

**Quality:** Low trans, food compliant according to the EU regulation 1881/2006

**Application:** Food, flavors, cosmetic, paints & coating and other technical applications

### Specification:

CHARACTERISTIC	INSPECTION METHOD	UNIT	SPECIFIED RANGE
Acid value	DGF C-V 2	mg KOH/g	195 - 204
Iodine Value	DGF C-V 11d	g I/100 g	128 - 143
Unsaponifiables	DGF C-III 1 a	%	<= 1
Titre	DGF C-IV 3c	°C	15 - 25
Lovibond 5 ¼" yellow	DGF C-IV 4		<= 10
Lovibond 5 ¼" red	DGF C-IV 4		<= 1.5
< Fatty acid C14	DGF C-VI 10 a	%	<= 2
Fatty acid C16	DGF C-VI 10 a	%	5 - 8
Fatty acid C18	DGF C-VI 10 a	%	2 - 6
Fatty acid C18:1	DGF C-VI 10 a	%	20 - 35
Fatty acid C18:2	DGF C-VI 10 a	%	55 - 68
Fatty acid C18:3	DGF C-VI 10 a	%	<= 2
> Fatty acid C18	DGF C-VI 10 a	%	<= 2
Sum trans fatty acids	DGF C-VI 10 a	%	<= 2





## WITARIX<sup>®</sup> Ra

## POLY UNSATURATED FATTY ACIDS

**Name:** Rapeseed oil fatty acid  
**Cas-No.:** 93165-31-2  
**Customs tariff code:** 3823 19 10  
**Appearance:** Liquid

**Quality:** Low trans, food compliant according to the EU regulation 1881/2006 and feed certified to the QS regulations, non GMO

**Application:** Food, feed, cosmetic and technical applications

### Specification:

CHARACTERISTIC	INSPECTION METHOD	UNIT	SPECIFIED RANGE
Acid value	DGF C-V 2	mg KOH/g	195 - 202
Iodine Value	DGF C-V 11d	g I/100 g	105 - 125
Unsaponifiables	DGF C-III 1 a	%	<= 1
Lovibond 5 ¼" yellow	DGF C-IV 4		<= 1
Lovibond 5 ¼" red	DGF C-IV 4		<= 1.5
< Fatty acid C16	DGF C-VI 10 a	%	<= 1
Fatty acid C16	DGF C-VI 10 a	%	4 - 7
Fatty acid C16:1	DGF C-VI 10 a	%	<= 1
Fatty acid C18	DGF C-VI 10 a	%	<= 3
Fatty acid C18:1	DGF C-VI 10 a	%	53 - 65
Fatty acid C18:2	DGF C-VI 10 a	%	18 - 23
Fatty acid C18:3	DGF C-VI 10 a	%	6 - 12
> Fatty acid C18	DGF C-VI 10 a	%	<= 6
Sum trans fatty acids	DGF C-VI 10 a	%	<= 1





## WITARIX® OLS 85

### POLY UNSATURATED FATTY ACIDS

**Name:** High oleic sunflower oil fatty acid  
**Cas-No.:** 112-80-1  
**Customs tariff code:** 3823 19 10  
**Appearance:** Liquid

**Quality:** Low trans, food compliant according to the EU regulation 1881/2006

**Application:** Food, flavors, cosmetic and technical applications

#### Specification:

CHARACTERISTIC	INSPECTION METHOD	UNIT	SPECIFIED RANGE
Acid value	DGF C-V 2	mg KOH/g	194 - 201
Iodine Value	DGF C-V 11d	g I/100 g	80 - 97
Unsaponifiables	DGF C-III 1 a	%	<= 1
Cloud point	DGF D-III 3	°C	<= 22
Lovibond 5 ¼" yellow	DGF C-IV 4		<= 10
Lovibond 5 ¼" red	DGF C-IV 4		<= 1
<= Fatty acid C16	DGF C-VI 10 a	%	<= 6
Fatty acid C16:1	DGF C-VI 10 a	%	<= 1
Fatty acid C18	DGF C-VI 10 a	%	<= 6
Fatty acid C18:1	DGF C-VI 10 a	%	81 - 90
Fatty acid C18:2	DGF C-VI 10 a	%	<= 10
Fatty acid C18:3	DGF C-VI 10 a	%	<= 1
> Fatty acid C18	DGF C-VI 10 a	%	<= 2
Sum trans fatty acids	DGF C-VI 10 a	%	<= 1





## WITARIX® LFS 75

### POLY UNSATURATED FATTY ACIDS

**Name:** Safflower oil fatty acid  
**Cas-No.:** 93165-34-5  
**Customs tariff code:** 2916 15 00  
**Appearance:** Liquid

**Quality:** Low trans, food compliant according to the EU regulation 1881/2006

**Application:** Cosmetic, flavor and technical applications

#### Specification:

CHARACTERISTIC	INSPECTION METHOD	UNIT	SPECIFIED RANGE
Acid value	DGF C-V 2	mg KOH/g	195 - 210
Iodine Value	DGF C-V 11d	g I/100 g	130 - 155
Peroxide value	DGF C-VI 6a	meq O2/kg	<= 5
Colour Gardner	DGF C-IV 4		<= 2
< Fatty acid C18	DGF C-VI 10 a	%	2 - 10
Fatty acid C18	DGF C-VI 10 a	%	<= 5
Fatty acid C18:1	DGF C-VI 10 a	%	8 - 16
Fatty acid C18:2	DGF C-VI 10 a	%	70 - 84
Fatty acid C18:3	DGF C-VI 10 a	%	<= 2
> Fatty acid C18	DGF C-VI 10 a	%	<= 2
Sum trans fatty acids	DGF C-VI 10 a	%	<= 1





## WITARIX® C8/99

### FATTY ACIDS

**Name:** Caprylic acid  
**Cas-No.:** 124-07-2  
**Customs tariff code:** 2915 90 70  
**Appearance:** Liquid

**Quality:** Coconut, palm and RSPO MB, feed certified to the QS regulations

**Application:** MCT, feed, fragrances & flavors, cosmetics and technical applications

#### Specification:

CHARACTERISTIC	INSPECTION METHOD	UNIT	SPECIFIED RANGE
Acid value	DGF C-V 2	mg KOH/g	384 - 392
Saponification value	DGF C-V 3	mg KOH/g	384 - 393
Iodine value	DGF C-V 11 d	g I/100 g	<= 0.5
Unsaponifiables	DGF D-III 1 a	%	<= 0.5
Titre	DGF C-IV 3 c	°C	12 - 16
Lovibond 5 ¼" yellow	DGF C-IV 4		<= 5
Lovibond 5 ¼" red	DGF C-IV 4		<= 0.5
Fatty acid C06	DGF C-VI 10 a	%	<= 1
Fatty acid C08	DGF C-VI 10 a	%	98 - 100
Fatty acid C10	DGF C-VI 10 a	%	<= 1





## WITARIX® C8-10 Typ 1

### FATTY ACIDS

**Name:** Caprylic - Capric acid

**Cas-No.:** 68937-75-7

**Customs tariff code:** 3823 19 10

**Appearance:** Liquid

**Quality:** Coconut, palm, organic (Ecocert), RSPO MB, food compliant according to the EU regulation 1881/2006 and feed certified to the QS regulations

**Application:** MCT, feed, fragrances & flavors, cosmetic and technical applications

#### Specification:

CHARACTERISTIC	INSPECTION METHOD	UNIT	SPECIFIED RANGE
Acid value	DGF C-V 2	mg KOH/g	354 - 365
Saponification value	DGF C-V 3	mg KOH/g	354 - 366
Iodine value	DGF C-V 11 d	g I/100 g	<= 0.5
Unsaponifiables	DGF D-III 1 a	%	<= 0.5
Titre	DGF C-IV 3 c	°C	1 - 5
Lovibond 5 ¼" yellow	DGF C-IV 4		<= 2
Lovibond 5 ¼" red	DGF C-IV 4		<= 0.5
Fatty acid C06	DGF C-VI 10 a	%	<= 0.5
Fatty acid C08	DGF C-VI 10 a	%	53 - 63
Fatty acid C10	DGF C-VI 10 a	%	35 - 46
Fatty acid C12	DGF C-VI 10 a	%	<= 1.5





## WITARIX® C12-18

### FATTY ACIDS

**Name:** Fatty acid C12-18  
**Cas-No.:** 90990-15-1  
**Customs tariff code:** 3823 19 10  
**Appearance:** Liquid

**Quality:** Coconut, organic (Ecocert)

**Application:** Cosmetic

#### Specification:

CHARACTERISTIC	INSPECTION METHOD	UNIT	SPECIFIED RANGE
Acid value	DGF C-V 2	mg KOH/g	250 - 263
Saponification value	DGF C-V 3	mg KOH/g	250 - 264
Iodine value	DGF C-V 11 d	g l/100 g	6 - 13
Unsaponifiables	DGF D-III 1 a	%	<= 1
Titre	DGF C-IV 3 c	°C	23 - 30
Lovibond 5 ¼" yellow	DGF C-IV 4		<= 5
Lovibond 5 ¼" red	DGF C-IV 4		<= 1
<= Fatty acid C10	DGF C-VI 10 a	%	<= 2
Fatty acid C12	DGF C-VI 10 a	%	50 - 62
Fatty acid C14	DGF C-VI 10 a	%	18 - 25
Fatty acid C16	DGF C-VI 10 a	%	7 - 14
Fatty acid C18	DGF C-VI 10 a	%	<= 5
Fatty acid C18:1	DGF C-VI 10 a	%	4 - 14
Fatty acid C18:2	DGF C-VI 10 a	%	<= 3
> Fatty acid C18	DGF C-VI 10 a	%	<= 1





## WITARIX® split Glycerin 80

GLYCERIN

**Name:** Split Glycerin 80  
**Cas-No.:** 56-81-5  
**Customs tariff code:** 1520 00 00  
**Appearance:** Liquid  
**Quality:** Vegetable, non palm and non GMO

### Specification:

CHARACTERISTIC	INSPECTION METHOD	UNIT	SPECIFIED RANGE
Glycerol content iodometric	DGF E-III 3 b	%	>= 80
Ash	DGF E-III 4	%	<= 2
Water content	DGF C-III 13 a	%	<= 20
MONG	DGF E-III 9 a	%	<= 3





## WITARIX® GC312

### MONOGLYCERID

**Name:** Monoglycerid C3-C12

**Customs tariff code:** 3824 99 55

**Appearance:** Liquid

**Quality:** Feed material according to  
13.028 of the GMP+ list of products

**Application:** Feed

#### Specification:

CHARACTERISTIC	INSPECTION METHOD	UNIT	SPECIFIED RANGE
Acid value	DGF C-V 2	mg KOH/g	<= 3
Glycerol	AAWBAN401085	%	<= 30
Monoglycerides	AAWBAN401085	%	>= 40