



# LetCo

LIQUID ENERGY TRADING COMPANY SWISS S.A.

## “Fatty acids and vegetable oils blends GMP+”

(Product code LQS SBZ29DijANE)

### Identification:

**Code number:** 13.6.1 according to Regulation (EU) No 682013 Catalogue of feed materials.

**Code number:** 02.10.04 according to the Positivliste for Straight Feeding Stuffs 11<sup>th</sup> edition, Standards Commission for Straight Feeding Stuffs at the Central Committee of the German Agriculture, Berlin, August 2014

**Code number:** 2.21 according to Products, GMP+ International, version 26.11.2014

### Description of product:

The product is obtained during the deacidification (neutralization) of sunflower oils by alkali, followed by an acidulation (sulphoric acid) with subsequent separation of the aqueous phase, containing free fatty acids, oils and natural components of sunflower seeds, such as mono-, and diglycerides, lecithin and fibers.

### Purpose/Application:

The product can be applied as vegetable feed for production of complete or specific types of fodder.

### GMO status:

For the production of fatty acids and vegetable oils blends only raw materials are used that do NOT contain genetically modified organisms.

**Origin:** Non-EU

**Halal:** the product is not certified to Hallal standard

**Kosher:** the product is not certified to Kosher standard

### Physical and chemical properties

Crude fat	min. 95%
Peroxide number	max. 40nmol H <sub>2</sub> O <sub>2</sub> /kg
Free fatty acid content (as oleic acid)	min. 30%
Soaponifiable matter	min. 95%
Unsoaponifiable matter	max . 2%
Moisture and volatile matters	max. 1,5%
Precipitate	max. 1,5%

### Nutritive value

Energy value per 100g of product	
Energy value	3700 kJ/ 900 kcal

**Microbiological characteristics**

	Unit	
Total number of CFU	in 1g	max. 12.000.000
Total number of yeasts and molds	in 1 g	max. 200.000
Escherichia coli	in 50 g	negative
Salmonella spp.	in 50 g	negative
Clostridium perfringens	in 50 g	negative

**Microbiological validity:** Provided by using concentrated sulphuric acid in hydrolysis process.  
Heating the fatty blend with direct steam.

**Allowed amounts of heavy metals**

	Unit	
Lead (Pb)	mg/kg	max. 10
Arsen (As)	mg/kg	max. 2
Cadmium (Cd)	mg/kg	max. 1
Mercury (Hg)	mg/kg	max 0,1
Antimony (Sb)	mg/kg	max. 1
Selenium (Se)	mg/kg	max. 1
Molybdenum (Mo)	mg/kg	max. 4
Alfa HCH	mg/kg	max. 0,01
Beta HCH	mg/kg	max. 0,01
Delta HCH	mg/kg	max. 0,01
Lindane	mg/kg	max. 0,01
Heptachlor	mg/kg	max. 0,01
Heptachlor epoksid	mg/kg	max. 0,01
Aldrin	mg/kg	max. 0,01
Chlordane	mg/kg	max. 0,01
Gama-chlordane	mg/kg	max. 0,01
p.p. DDE	mg/kg	max. 0,01
p.p. DDD	mg/kg	max. 0,01
p.p. DDT	mg/kg	max. 0,01
Endrin	mg/kg	max. 0,01
Endrin-ketone	mg/kg	max. 0,01
Endosulphan II	mg/kg	max. 0,01
Endosulphansulphate	mg/kg	max. 0,01
Metaxychlor	mg/kg	max. 0,01
137Cs	Bq/kg	< 5
226 Ra	Bq/kg	< 5
232 Th	Bq/kg	< 5
40K	Bq/kg	< 40
Sum of dioxine	pg/g	max. 0,75
Sum of dioxine and PCB	pg/g	max. 1,5
PAH(benzo(a)pyrene)	µ/kg	max. 2

**Radioactivity:** The “Fatty acids and vegetable oils blend GMP+” product is not irradiated or produced by irradiation of raw materials and intermediate products. The auxiliary materials for productions are not irradiated.

**Packaging:** in bulk, tanks or according to the customer's demand

**Storage:** Storage in bulk in special tanks. Stored under ambiental conditions.

**Shelf life:** 180 days from loading date provided the product is stored as said above.

**Analysis results dated 03.12.2014**

C8:0	GC mk % m/m	Not detected
C10:0	GC mk % m/m	Not detected
C12:0	GC mk % m/m	0,05
C14:0	GC mk % m/m	0,12
C16:0	GC mk % m/m	7,93
C16:1	GC mk % m/m	0,08
C17:0	GC mk % m/m	0,10
C17:1	GC mk % m/m	0,02
C18:0	GC mk % m/m	3,88
C18:1 trans	GC mk % m/m	1,05
C18:1 cis	GC mk % m/m	28,06
C18:2 trans	GC mk % m/m	0,09
C18:2 cis	GC mk % m/m	56,34
C18:3	GC mk % m/m	0,22
C20:0	GC mk % m/m	0,45
C20:1	GC mk % m/m	0,16
C22:0	GC mk % m/m	1,05
C22:1	GC mk % m/m	Not detected
C24:0	GC mk % m/m	0,40

**Method:** SRPSLN ISO 15304

**Liability**

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