

New Holland Extraction Ltd.

Product Specification

Product: Wheatgerm Oil, Unrefined – Food Grade

INCI Name: Triticum aestivum (Wheat) Germ Oil

Description: A yellowish to brown oil, typical in taste and smell.

Analytical Characteristics

Acid Value (mg KOH/kg)	< 20.0
Free Fatty Acid %	< 10.0
Peroxide Value (meq/kg)	< 10.0
Moisture %*	< 0.1
Hexane (ppm)	< 1
Saponification Value*	180 – 195
Unsaponifiable Matter*	< 5.0
Refractive Index @ 20°C*	1.470 – 1.480
Specific Gravity 20/20°C*	0.920 – 0.930
Colour (Gardner)*	> 9.0

Tocopherol Content

α-tocopherol (mg/g)*	> 2.0
Total Tocopherol (mg/g)*	> 3.0

Fatty Acid Composition (major fatty acids)

C _n	FAME	% Composition Range
16:0	Palmitic	14 – 19
18:0	Stearic	< 2
18:1	Oleic	9 - 14
18:2	Linoleic	54 - 60
18:3α	Alpha Linoleic	6 - 10
20:1	Icosenoic	< 2
	Others	1 - 4

Contaminants

Pesticides*	In accordance with European Food Laws	
Heavy Metals* (mg/kg)	Lead	< 0.1
	Cadmium	< 0.05
	Mercury	< 0.05
	Arsenic	< 0.1
Polycyclic Aromatic Hydrocarbons (PAH's)*	BAP (benzo (a) pyrene) < 2 µg/kg	
Dioxins and Furans*	< 0.75 pg/g (as WHO-PCDD/F-TEQ)	
Dioxins, Furans & dioxin-like PCBs*	< 1.25 pg/g (as WHO-PCDD/F-PCB-TEQ)	
Microbiology*	TVC (cfu/g)	< 10,000
	Moulds & Yeasts (cfu/ml)	< 200
	Salmonella	Not detected
	E. Coli	Not detected

*All analyses are performed on one random batch per year, except PAH's which are analysed on 3 random batches per year

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Storage & Transport

The oil has a best before date of 24 months in the original packaging. The oil should be stored in a cool, dry place, avoiding light and heat. The oil is packed under nitrogen. When removing oil from the drum it is advised that the drum is filled with nitrogen before closing tightly to prevent oxidation.

New Holland Extraction's oil is an unrefined product, and is therefore abundant in phospholipids and natural waxes. These materials will separate out on chilling. The oil should be well mixed before use to ensure thorough mixing of these substances throughout the oil.

Sixth Issue: 06/04/2016	Authored by: <i>J. C. Knowles</i> (Chemical Analyst)	Approved by: <i>C. Wilkins</i> (Plant Manager)
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