



Aromatic solutions
for a global market

Hughes & Company

Certificate of Analysis

Product Name Hemp Oil Unrefined

Batch 42406-51 Product Code - Date 20/05/2022

TEST RESULTS

ANALYTICAL TEST	SPECIFICATION RANGE	RESULT
Appearance	Clear liquid; green to dark green	Conforms
Odour	Characteristic	Conforms
Relative Density @ 20°C (g/ml)	0.923 – 0.931	0.925
Refractive Index @ 20°C	1.470 – 1.485	1.477
Acid value (mgKOH/g)	≤ 5.0	2.6
Free Fatty Acid (% as Oleic)	≤ 2.5	1.3
Saponification value (mgKOH/g)	188.0 – 195.0	191.0
Peroxide value (Meq/kg)	≤ 20.0	8.50 <i>(at time of production analysis)</i>
Iodine value (mg/g)	150.0 - 220.0	161.0
Unsaponifiable matter (%)	≤ 2.5	1.4
Fatty Acid Profile (%)		
C 16:0 Palmitic Acid	4.0 – 10.0	6.29
C 18:0 Stearic Acid	≤ 5.0	3.9
C 18:1 Oleic Acid	5.0 – 20.0	13.1
C 18:2 Linoleic Acid	45.0 – 69.0	55.1
C 18:3 Alpha Linoleic Acid	14.0 - 28.0	15.5
C 18:3 Gamma Linolenic Acid	≤ 5.0	3.2

STORAGE

Shelf life of this product is influenced by many conditions of which temperature, exposure to light / air and general good storage are the major factors. Material stored in adverse conditions may deteriorate much faster. Our suggested "Re-test" date shown on this certificate reflects a minimum period in which we would expect product to remain in good usable conditions if stored as recommended. Thereafter its continued shelf life may be very much longer and we advise re-test at the indicated date and then every 3-6 months up to a suggested commercial expiry date as shown below. The expiry date is subjective and should be controlled by QC/QA. Typical indicators of re-test failure would be changes in organoleptic properties (clarity / colour / sediment / haze / off odour etc) Such changes may be gradual and slight and the commercial expiry date is intended to reflect a viable maximum proposal subject to earlier re-test approvals

STABILITY

Date of packing: 04/22
 Re-test date: 10/23
 Commercial expiry date: 04/24