



HUGHES & CO.

GLOBAL AROMATIC SOLUTIONS

Certificate of Analysis

Product Name:	Mandarin Oil		
		Customer Ref:	
Date:	14/11/2022	Batch no:	43555-43

Analytical Test	Specification	Result
Appearance	Mobile liquid, pale orange to dark orange	Conforms
Odour	Characteristic	Conforms
Specific Gravity @ 20°C (g/ml)	0.835 – 0.855	0.846
Refractive Index @ 20°C	1.465 – 1.485	1.474
Optical Rotation (Degrees)	+80.0 to +105.0	93.25
Packing Date:		10/2022
Recommended re-test date:		04/2024
Commercial Expiry date:		10/2024

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