

# Specification Sheet

## Product: **Mānuka Oil Hydrosol**

(*Leptospermum scoparium*)

**Product Code: MHYD**

### Origin & Typical Physical Properties<sup>1</sup>

Country of Origin	New Zealand
Plant Part Used	Aerial Leaf & twig
Extraction Method	Steam Distillation
Physical Appearance	Clear Mobile Aqueous Liquid
Odour	Herbal Aroma
Solubility	Infinite in Water & Alcohol's
Flash Point	Not flammable
pH	≈ 3.3
Manuka β-triketone Content	2 - 20 ppm
Shelf Life <sup>2</sup>	2 year

<sup>1</sup>Typical ranges for New Zealand Manuka Bioactives Ltd. *Mānuka Oil Hydrosol*.

<sup>2</sup>2 Years if unopened and stored under optimum storage conditions (sealed, away from direct sunlight and in cool). Longer is subject to retesting.

Mānuka Hydrosol contains a very complex number of over 100 organic compounds produced from high β-triketone Mānuka brush *via* steam distillation. The organic portion of the hydrosol contains a high proportion of anti-microbial Mānuka β-triketones, along with a myriad of other oxygenated terpenoid related compounds. Additionally the hydrosol has many other water soluble components (Natural alcohols & acids).

### Typical Ranges for Principal Major Organic Constituents in Mānuka Hydrosol

(% Area by GC-FID/MS)

Compound	ppm <sup>3</sup>
1,8-Cineole	0.2 - 4.0
2-Hexenal	0 - 2.0
E-3-Hexen-1-ol + Z-3-Hexen-1-ol	0.8 - 11
Linalool	0 - 2.0
Terpinene-4-ol	0 - 2.5
Benzeneacetaldehyde	0.1 - 2.5
α-Terpineol	0 - 4.0
4-Phenyl-2-Butanone	0.5 - 2.0
Calamenene	0 - 2.0
2-Phenylethyl Alcohol	1.5 - 4.0
2-Phenylethyl Propanol	0 - 1.5
Flavesone(β-Triketone)	1.0 - 7.0
Isoleptospermone + Leptospermone(β-Triketones)	1.0 - 12
Acetone	0 - 2.0
Methyl Alcohol	2 - 25
Ethyl Alcohol	0.4 - 40

<sup>3</sup>ppm = Parts per Million (mg/kg), % = ppm/10,000.

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