



## Certificate of Analysis

Biosota Organics PTY Ltd  
 Unit 10 / 475 Scottsdale Drive  
 Gold Coast QLD 4227  
 Attention: Andrey Zubko  
 Phone: +61 0409839773  
 Email: andrey.zubko@biosota.com

Lab Reference: 24-06887  
 Submitted by:  
 Date Received: 2/03/2024  
 Testing Initiated: 4/03/2024  
 Date Completed: 6/03/2024  
 Order Number: 00020  
 Reference: 000020

### Report Comments

Samples were collected by yourselves (or your agent) and analysed as received at Analytica Laboratories (or at the subcontracted laboratories, when applicable). Samples were in acceptable condition unless otherwise noted on this report. Specific testing dates are available on request.

### Results Summary

#### 3in1 in Honey

Laboratory ID	Sample ID	Dihydroxyacetone (DHA)	Methylglyoxal (MG/MGO)	Non-Peroxide Activity* (NPA)	Hydroxymethylfurfural (HMF)
	<i>Units Reporting Limit</i>	mg/kg 40	mg/kg 8	%w/v phenol eq. 1.3	mg/kg 1
24-06887-1	BN: 228819_MGO 2200+	3,170	2,330	37.3	37.6

#### 3in1 in Honey Approver:

Alicia Laing, BSc.  
 Technician

#### Leptosperin in Honey

Laboratory ID	Sample ID	Leptosperin
	<i>Units Reporting Limit</i>	mg/kg 20
24-06887-1	BN: 228819_MGO 2200+	180

#### Leptosperin in Honey Approver:

Gurmeet Singh, Dip. Tech. (Sci)  
 Senior Technician

## Method Summary

<b>3in1</b>	Determination of Dihydroxyacetone (DHA), Methylglyoxal (MG/MGO) and Hydroxymethylfurfural (HMF) by aqueous extraction, derivatisation, and UPLC (diode array) analysis in accordance with in-house procedures.
<b>NPA</b>	<p>Non-Peroxide Activity (NPA) values are not directly measured by the laboratory, but are calculated from the measured methylglyoxal concentration in the honey according to the requirements of the client. The calculation is based on published data(†) comparing the NPA and methylglyoxal concentration measured in a range of honey samples. These calculated values are not accredited by IANZ and do not imply that the honey is or is not manuka honey. NPA values less than 5 are an estimate based on extrapolation of the relationship between methylglyoxal and NPA</p> <p>(†) <i>Isolation by HPLC and characterisation of the bioactive fraction of New Zealand manuka (Leptospermum scoparium) honey.</i> C. J. Adams, et al. <i>Carbohydrate Research</i> 343 (2008) 651-659. And, <i>Corrigendum to "Isolation by HPLC and characterization of the bioactive fraction of New Zealand manuka (Leptospermum scoparium) honey" [Carbohydr. Res. 343 (2008) 651].</i> <i>Carbohydrate Research</i> 344 (2009) 2609. C. J. Adams, et al.</p>
<b>Leptosperin</b>	Aqueous extraction, dilution, analysis by UPLC-PDA/FLD in accordance with in-house procedures.