

CERTIFICATE OF ANALYSIS

Product: Lemongrass Essential Oil – Organic

Lot No.: 50032A10419

Best Before: April, 2021

Store in air tight containers; in a cool dry area; away from direct sunlight.

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
Appearance:	Pale yellow to light reddish brown cloudy to clear liquid.	Complies
Odor:	Fresh grassy-lemon odor.	Complies
Solubility:	Soluble in alcohol and oils. Insoluble in water.	Complies
Specific Gravity:	0.854 to 0.902 @ 20°C	0.896
Refractive Index:	1.475 to 1.492 @ 20°C	1.484
Optical Rotation:	-5.0° to +1.0° @ 20°C	-2.6°
Citral:	68 to 85 %	73.9
Geraniol:	3 – 8 %	7.1
Geranyl Acetate:	3.2 – 7.5 %	3.9

Disclaimer & Caution

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agrees that Jurisdiction is limited to the province of Ontario.

CERTIFICATE OF ANALYSIS

Product: Lemongrass Essential Oil – Organic

Lot No.: 50032-A25

Best Before: August, 2020

Store in air tight containers; in a cool dry area; away from direct sunlight.

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
Appearance:	Pale yellow to light reddish brown cloudy to clear liquid.	Complies
Odor:	Fresh grassy-lemon odor.	Complies
Solubility:	Soluble in alcohol and oils. Insoluble in water.	Complies
Specific Gravity:	0.887 to 0.899 @ 25°C	0.8918
Refractive Index:	1.478 to 1.497 @ 20°C	1.4835
Optical Rotation:	-4.0° to +1.0° @ 25°C	-2.03°
Citral:	60 to 82%	69.06

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CERTIFICATE OF ANALYSIS

Product: Lemongrass Essential Oil – Organic

Lot No.: 50032-A24

Best Before: February, 2020

Store in air tight containers; in a cool dry area; away from direct sunlight.

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
Appearance:	Pale yellow to light reddish brown cloudy to clear liquid.	Complies
Odor:	Fresh grassy-lemon odor.	Complies
Solubility:	Soluble in alcohol and oils. Insoluble in water.	Complies
Specific Gravity:	0.887 to 0.899 @ 25°C	0.890
Refractive Index:	1.478 to 1.497 @ 20°C	1.482
Optical Rotation:	-4.0° to +1.0° @ 25°C	-1.4°
Citral:	60 to 82%	70.3

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CERTIFICATE OF ANALYSIS

Product: Lemongrass Essential Oil – Organic

Lot No.: 50032-A23

Best Before: December, 2019

Store in air tight containers; in a cool dry area; away from direct sunlight.

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
Appearance:	Pale yellow to light reddish brown cloudy to clear liquid.	Complies
Odor:	Fresh grassy-lemon odor.	Complies
Solubility:	Soluble in alcohol and oils. Insoluble in water.	Complies
Specific Gravity:	0.886 to 0.896 @ 25°C	0.8935
Refractive Index:	1.477 to 1.485 @ 20°C	1.4837
Optical Rotation:	-4.0° to +1.0° @ 25°C	-1.55°
Citral:	65 to 75%	67.25

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CERTIFICATE OF ANALYSIS

Product: Lemongrass Essential Oil – Organic

Lot No.: 50032-A22,B22

Best Before: June, 2019

Store in air tight containers; in a cool dry area; away from direct sunlight.

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
Appearance:	Pale yellow to light reddish brown cloudy to clear liquid.	Complies
Odor:	Fresh grassy-lemon odor.	Complies
Solubility:	Soluble in alcohol and oils. Insoluble in water.	Complies
Specific Gravity:	0.886 to 0.896 @ 25°C	0.890
Refractive Index:	1.477 to 1.485 @ 20°C	1.483
Optical Rotation:	-4.0° to +1.0° @ 25°C	-1.0°
Citral:	65 to 75%	72.47

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