

CERTIFICATE OF ANALYSIS

Product: **Spearmint 65% (India) Essential Oil**

Lot No.: 11310B11019

Best Before: June, 2022

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

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
Appearance:	Reddish yellow to light yellow liquid.	Complies
Odor:	Characteristic spearmint odor.	Complies
Solubility:	Soluble in 3.5 volume of 70% alcohol solution. Insoluble in water.	Complies
Specific Gravity:	0.918 to 0.930 @ 20°C	0.921
Refractive Index:	1.485 to 1.494 @ 20°C	1.489
Optical Rotation:	-65 to -45 @ 20°C	-60.75°
L-Carvone:	52 - 70 %	67.50
α -pinene:	0.5 - 2.0 %	1.15
Limonene:	17 - 25 %	20.95
Cineole:	1.30 - 2.20 %	1.95
Total Terpene:	20 - 30 %	23.70

CERTIFICATE OF ANALYSIS

Product: **Spearmint 65% (India) Essential Oil**

Lot No.: 11310C11219

Best Before: December, 2021

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

Properties

Specifications

Results

Appearance:	Reddish yellow to light yellow liquid.	Complies
Odor:	Characteristic spearmint odor.	Complies
Solubility:	Soluble in 3.5 volume of 70% alcohol solution. Insoluble in water.	Complies
Specific Gravity:	0.9200 to 0.9350 @ 25°C	0.9275
Refractive Index:	1.4900 to 1.4970 @ 20°C	1.4901
Optical Rotation:	-55 to -62 @ 20°C	-56.48°
L-Carvone:	65 - 70 %	65.79

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Product: Spearmint 65% (India) Essential Oil

Lot No.: 11310A10719

Best Before: December, 2021

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

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
Appearance:	Reddish yellow to light yellow liquid.	Complies
Odor:	Characteristic spearmint odor.	Complies
Solubility:	Soluble in 3.5 volume of 70% alcohol solution. Insoluble in water.	Complies
Specific Gravity:	0.901 to 0.945 @ 20°C	0.926
Refractive Index:	1.475 to 1.498 @ 20°C	1.487
Optical Rotation:	-62 to -48 @ 20°C	-55.9°
L-Carvone:	60 - 70 %	65.9
α-pinene:	0.8 - 1.5 %	Complies
Limonene:	15 - 30 %	19.9
Cineole:	1.0 - 3.0 %	Complies

CERTIFICATE OF ANALYSIS

Product: Spearmint 65% (India) Essential Oil

Lot No.: 11310-A12

Best Before: December, 2021

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

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
Appearance:	Reddish yellow to light yellow liquid.	Complies
Odor:	Characteristic spearmint odor.	Complies
Solubility:	Soluble in 3.5 volume of 70% alcohol solution. Insoluble in water.	Complies
Specific Gravity:	0.918 to 0.930 @ 20°C	Complies
Refractive Index:	1.485 to 1.494 @ 20°C	Complies
Optical Rotation:	-65 to -45 @ 20°C	Complies
L-Carvone:	52 - 70 %	65.80
α-pinene:	0.50 - 2.00 %	1.10
Limonene:	17 - 25 %	21.50
Cineole:	1.30 - 2.20 %	1.95
Total Terpene:	20 - 30 %	25.15

CERTIFICATE OF ANALYSIS

Product: Spearmint 65% (India) Essential Oil

Lot No.: 11310-A11,B11,C11,D11

Best Before: September, 2020

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

<u>Properties</u>	<u>Specifications</u>	<u>Results</u>
Appearance:	Colorless to pale yellow liquid.	Complies
Odor:	Characteristic spearmint odor.	Complies
Solubility:	Soluble in a 3.5 volume of a 70% alcohol solution. Insoluble in water.	Complies
Specific Gravity:	0.918 to 0.930 @ 20°C	Complies
Refractive Index:	1.485 to 1.494 @ 20°C	Complies
Optical Rotation:	-65 to -45 @ 20°C	Complies
L-Carvone:	52 - 70 %	66.00 %
α -pinene:	0.50 - 2.00 %	1.05 %
Limonene:	17 - 25 %	22.50 %
Cineole:	1.30 - 2.20 %	1.90 %
Total Terpene:	20 - 30 %	25.50 %