

CERTIFICATE OF ANALYSIS



IDENTIFICATION:

PRODUCT NAME: Limonene
PRODUCT DESIGNATION: Isolate
TT PRODUCT #: TTI-LIMO
LOT #: T106265
INTENDED FOR USE BY: April 2023
CAS #: 5989-27-5
EC #: 227-813-5

PARAMETER:	SPECIFICATION:	RESULT:
APPEARANCE:	Colorless to pale yellow liquid	Colorless to pale yellow liquid
ODOR:	Fresh, light, mild orange	Fresh, light, mild orange
ASSAY:	90.0-100.0 %	99.1 %

Additional Product Information:

Storage Conditions: Stable when stored in its original container securely tightened and away from heat, open flames, sunlight, combustible materials and hot surfaces. Store in a cool, dry, and well-ventilated place.

TRACE CONTAMINANT LEVELS:

Component: D-LIMONENE, NATURAL

Test Type: Heavy Metals

Contaminant Name	Max. Allowed (ppm)	Test Result	Contaminant Name	Max. Allowed (ppm)	Test Result
Arsenic	0.2	< 0.0441 mg/kg	Cadmium	0.2	< 0.0441 mg/kg
Lead	0.5	< 0.0441 mg/kg	Mercury	0.1	< 0.0220 mg/kg

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Component: D-LIMONENE, NATURAL

Test Type: Pesticide

Contaminant Name	Max. Allowed (ppm)	Test Result	Contaminant Name	Max. Allowed (ppm)	Test Result
Abamectin	0.07	< 0.070 mg/kg	Acephate	0.1	< 0.10 mg/kg
Acequinocyl	0.1	< 0.10 mg/kg	Acetamiprid	0.1	< 0.10 mg/kg
Aldicarb	0.4	< 0.10 mg/kg	Azoxystrobin	0.02	< 0.020 mg/kg
Bifenazate	0.02	< 0.020 mg/kg	Bifenthrin	0.1	< 0.10 mg/kg
Boscalid	0.1	< 0.10 mg/kg	Captan	0.7	< 0.70 mg/kg
Carbaryl	0.2	< 0.10 mg/kg	Carbofuran	0.2	< 0.10 mg/kg
Chlorantraniliprole	0.2	< 0.10 mg/kg	Chlordane	0.1	< 0.10 mg/kg
Chlorfenapyr	0.2	< 0.10 mg/kg	Chlorpyrifos	0.2	< 0.10 mg/kg
Clofentezine	0.1	< 0.10 mg/kg	Coumaphos	0.1	< 0.10 mg/kg
Cyfluthrin	1	< 0.50 mg/kg	Cypermethrin	1	< 0.50 mg/kg
Daminozide	0.10	< 0.10 mg/kg	DDVP (Dichlorvos)	0.1	< 0.10 mg/kg
Diazinon	0.1	< 0.10 mg/kg	Dimethoate	0.2	< 0.10 mg/kg
Dimethomorph	2	< 0.20 mg/kg	Ethoprophos	0.2	< 0.10 mg/kg
Etofenprox	0.4	< 0.10 mg/kg	Etoxazole	0.1	< 0.10 mg/kg
Fenhexamid	0.1	< 0.10 mg/kg	Fenoxycarb	0.2	< 0.10 mg/kg
Fenpyroximate	0.1	< 0.10 mg/kg	Fipronil	0.4	< 0.10 mg/kg
Flonicamid	0.1	< 0.10 mg/kg	Fludioxonil	0.1	< 0.10 mg/kg
Hexythiazox	0.1	< 0.10 mg/kg	Imazalil	0.10	< 0.10 mg/kg
Imidacloprid	0.02	< 0.020 mg/kg	Kresoxim-methyl	0.1	< 0.10 mg/kg
Malathion	0.2	< 0.10 mg/kg	Metalaxyl	0.2	< 0.10 mg/kg
Methiocarb	0.2	< 0.10 mg/kg	Methomyl	0.4	< 0.20 mg/kg
Methyl-Parathion	0.2	< 0.10 mg/kg	Mevinphos	0.1	< 0.10 mg/kg
MGK-264	0.2	< 0.10 mg/kg	Myclobutanil	0.04	< 0.040 mg/kg
Naled	0.2	< 0.20 mg/kg	Oxamyl	0.5	< 0.50 mg/kg
Paclobutrazol	0.10	< 0.10 mg/kg	Pentachloronitrobenzene	0.1	< 0.10 mg/kg
Permethrins	0.04	< 0.040 mg/kg	Phosmet	0.1	< 0.10 mg/kg
Piperonyl Butoxide	2	< 0.50 mg/kg	Prallethrin	0.1	< 0.10 mg/kg
Propiconazole	0.1	< 0.10 mg/kg	Propoxur	0.2	< 0.10 mg/kg
Pyrethrins	0.5	< 0.50 mg/kg	Pyridaben	0.1	< 0.10 mg/kg
Spinetoram	0.1	< 0.10 mg/kg	Spinosad	0.06	< 0.060 mg/kg
Spiromesifen	0.03	< 0.030 mg/kg	Spirotetramat	0.02	< 0.020 mg/kg
Spiroxamine	0.4	< 0.10 mg/kg	Tebuconazole	0.01	< 0.010 mg/kg
Thiacloprid	0.2	< 0.10 mg/kg	Thiamethoxam	0.2	< 0.10 mg/kg
Trifloxystrobin	0.1	< 0.10 mg/kg			

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Component: D-Limonene, Natural

Test Type: Residual Solvent

Contaminant Name	Max. Allowed (ppm)	Test Result	Contaminant Name	Max. Allowed (ppm)	Test Result
1,2-Dichloroethane	1.0	< 1 ppm	1,4-Dioxane	380	< 3 ppm
1-Butanol	5000	< 10 ppm	1-Pentanol	5000	< 25 ppm
1-Propanol	5000	< 3 ppm	2,2-Dimethylbutane	50	< 10 ppm
2,3-Dimethylbutane	50	< 50 ppm	2-Butanol	5000	< 5 ppm
2-Butanone	5000	< 3 ppm	2-Ethoxyethanol	160	< 50 ppm
2-Methylbutane	750	< 5 ppm	2-Methylpentane	50	< 5 ppm
2-Methylpropane (Isobutane)	800	< 10 ppm	2-Propanol (IPA)	500	48 ppm
3-Methylpentane	50	< 3 ppm	Acetone	750	< 5 ppm
Acetonitrile	60	< 5 ppm	Benzene	1.0	< 0.5 ppm
Butane	500	< 10 ppm	Chloroform	1.0	< 1 ppm
Cumene (Isopropyl Benzene)	70	< 1 ppm	Cyclohexane	3880	< 3 ppm
Dimethyl Sulfoxide (DMSO)	5000	< 400 ppm	Ethanol	1000	< 10 ppm
Ethyl Acetate	400	< 5 ppm	Ethyl Ether	500	< 1 ppm
Ethylbenzene	150	< 1 ppm	Ethylene Glycol	620	< 400 ppm
Ethylene Oxide	1.0	< 1 ppm	Heptane	500	< 3 ppm
Isopropyl Acetate	60	< 3 ppm	m-Xylene and p-Xylene	150	< 2 ppm
Methanol	250	< 3 ppm	Methylene Chloride	1.0	< 0.5 ppm
N,N-Dimethylacetamide	880	< 50 ppm	N,N-Dimethylformamide	880	< 50 ppm
n-Hexane	50	< 3 ppm	Naphtha	400	< 171 ppm
Neopentane	750	< 3 ppm	o-Xylene	150	< 3 ppm
Pentane	750	< 1 ppm	Petroleum Ether	400	< 171 ppm
Propane	500	< 50 ppm	Pyridine	200	< 25 ppm
Tetrahydrofuran	720	< 1 ppm	Toluene	150	< 1 ppm
Total Residual Solvents	5000	< 1274 ppm	Trichloroethylene	1.0	< 1 ppm
Xylenes	150	< 6 ppm			

Branston Mefferd
Quality Control

Disclaimer: This Certificate of Analysis may contain results provided by contract laboratories external to True Terpenes. This document does not relieve the purchaser from conducting their own tests in order to verify the suitability of this product for its application and to comply with all relevant legal requirements for any goods into which this product is incorporated. Botanically derived and/or synthetic compounds found in this product may contain trace compounds which can potentially result in a slight variance between lots. True Terpenes certifies that this product is not derived from cannabis nor does it contain any cannabinoids or other cannabis-derived extracts.