

# CERTIFICATE OF ANALYSIS



DATE ISSUED: 06/05/2023

## IDENTIFICATION:

**PRODUCT NAME:** Terpinolene

**PRODUCT DESIGNATION:** Isolate

**TT PRODUCT #:** TTI-TPLN

**LOT #:** 23052516

**INTENDED FOR USE BY:** May 2024

**CAS #:** 586-62-9

**EC #:** 209-578-0

**MANUFACTURING DATE:** 5/25/2023

| PARAMETER:                | SPECIFICATION:                  | RESULT:         |
|---------------------------|---------------------------------|-----------------|
| <b>APPEARANCE:</b>        | Colorless to Pale Yellow Liquid | PASSES VISUALLY |
| <b>ODOR:</b>              | Piney, Mild, Sweet, Citrus      | PASSES SENSORY  |
| <b>HEAVY METALS:</b>      | PASSES TESTING                  | PASSES TESTING  |
| <b>PESTICIDES:</b>        | PASSES TESTING                  | PASSES TESTING  |
| <b>RESIDUAL SOLVENTS:</b> | PASSES TESTING                  | PASSES TESTING  |

## 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.

Reviewed by Graham Wiklund

Date: 06/05/2023

### Disclaimer:

This Certificate of Analysis contains specifications and 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. The limits in this Certificate of Analysis may not be inclusive of all compound regulations in your region.

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## Heavy Metal Test Results (ppm)

| Analyte | Max Allowed | LOQ    | Result | Analyte | Max Allowed | LOQ    | Result |
|---------|-------------|--------|--------|---------|-------------|--------|--------|
| Arsenic | 0.2         | 0.0946 | < LOQ  | Cadmium | 0.2         | 0.0946 | < LOQ  |
| Lead    | 0.5         | 0.0946 | < LOQ  | Mercury | 0.1         | 0.0473 | < LOQ  |

## Pesticide Test Results (ppm)

| Analyte              | Max Allowed | LOQ   | Result | Analyte             | Max Allowed | LOQ   | Result |
|----------------------|-------------|-------|--------|---------------------|-------------|-------|--------|
| Abamectin            | 0.07        | 0.07  | < LOQ  | Acephate            | 0.05        | 0.02  | < LOQ  |
| Acequinocyl          | 0.05        | 0.025 | < LOQ  | Acetamiprid         | 0.05        | 0.05  | < LOQ  |
| Aldicarb             | 0.1         | 0.1   | < LOQ  | Allethrin           | 0.1         | 0.1   | < LOQ  |
| Azadirachtin         | 0.5         | 0.5   | < LOQ  | Azoxystrobin        | 0.01        | 0.01  | < LOQ  |
| Benzovindiflupyr     | 0.01        | 0.01  | < LOQ  | Bifenazate          | 0.01        | 0.01  | < LOQ  |
| Bifenthrin           | 0.1         | 0.1   | < LOQ  | Boscalid            | 0.01        | 0.01  | < LOQ  |
| Buprofezin           | 0.01        | 0.01  | < LOQ  | Captan              | 0.7         | 0.7   | < LOQ  |
| Carbaryl             | 0.025       | 0.025 | < LOQ  | Carbofuran          | 0.01        | 0.01  | < LOQ  |
| Chlorantraniliprole  | 0.2         | 0.01  | < LOQ  | Chlordane           | 0.1         | 0.1   | < LOQ  |
| Chlorfenapyr         | 0.1         | 0.1   | < LOQ  | Chlorpyrifos        | 0.01        | 0.01  | < LOQ  |
| Clofentezine         | 0.01        | 0.01  | < LOQ  | Clothianidin        | 0.025       | 0.025 | < LOQ  |
| Coumaphos            | 0.01        | 0.01  | < LOQ  | Cyantraniliprole    | 0.01        | 0.01  | < LOQ  |
| Cyfluthrin           | 0.4         | 0.4   | < LOQ  | Cypermethrin        | 1           | 0.3   | < LOQ  |
| Cyprodinil           | 0.01        | 0.01  | < LOQ  | Daminozide          | 0.05        | 0.05  | < LOQ  |
| Deltamethrin         | 0.5         | 0.5   | < LOQ  | Diazinon            | 0.1         | 0.01  | < LOQ  |
| Dichlorvos           | 0.05        | 0.05  | < LOQ  | Dimethoate          | 0.01        | 0.01  | < LOQ  |
| Dimethomorph         | 2           | 0.05  | < LOQ  | Dinotefuran         | 0.05        | 0.05  | < LOQ  |
| Dodemorph            | 0.05        | 0.05  | < LOQ  | Endosulfan Sulfate  | 2.5         | 0.05  | < LOQ  |
| $\alpha$ -Endosulfan | 2.5         | 0.05  | < LOQ  | $\beta$ -Endosulfan | 2.5         | 0.05  | < LOQ  |
| Ethoprophos          | 0.01        | 0.01  | < LOQ  | Etofenprox          | 0.01        | 0.01  | < LOQ  |
| Etoxazole            | 0.1         | 0.01  | < LOQ  | Etridiazole         | 0.15        | 0.05  | < LOQ  |
| Fenhexamid           | 0.1         | 0.1   | < LOQ  | Fenoxycarb          | 0.01        | 0.01  | < LOQ  |

Terpinolene - TTI-TPLN - 23052516

[TrueTerpenes.com](https://www.TrueTerpenes.com)  
(888) 954-8550

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## Pesticide Test Results *Continued* (ppm)

| Analyte          | Max Allowed | LOQ   | Result | Analyte                              | Max Allowed | LOQ   | Result |
|------------------|-------------|-------|--------|--------------------------------------|-------------|-------|--------|
| Fenpyroximate    | 0.1         | 0.02  | < LOQ  | Fensulfothion                        | 0.01        | 0.01  | < LOQ  |
| Fenthion         | 0.01        | 0.01  | < LOQ  | Fenvalerate                          | 0.2         | 0.2   | < LOQ  |
| Fipronil         | 0.01        | 0.01  | < LOQ  | Flonicamid                           | 0.025       | 0.025 | < LOQ  |
| Fludioxonil      | 0.01        | 0.01  | < LOQ  | Fluopyram                            | 0.01        | 0.01  | < LOQ  |
| Hexythiazox      | 0.1         | 0.01  | < LOQ  | Imazalil                             | 0.01        | 0.01  | < LOQ  |
| Imidacloprid     | 0.01        | 0.01  | < LOQ  | Iprodione                            | 0.5         | 0.5   | < LOQ  |
| Kinoprene        | 1.25        | 0.05  | < LOQ  | Kresoxim-methyl                      | 0.1         | 0.01  | < LOQ  |
| Malathion        | 0.01        | 0.01  | < LOQ  | Metalaxyl                            | 0.01        | 0.01  | < LOQ  |
| Methiocarb       | 0.01        | 0.01  | < LOQ  | Methomyl                             | 0.025       | 0.025 | < LOQ  |
| Methoprene       | 1           | 1     | < LOQ  | Mevinphos                            | 0.025       | 0.025 | < LOQ  |
| MGK-264          | 0.2         | 0.05  | < LOQ  | Myclobutanil                         | 0.01        | 0.01  | < LOQ  |
| Naled            | 0.1         | 0.1   | < LOQ  | Novaluron                            | 0.025       | 0.025 | < LOQ  |
| Oxamyl           | 0.5         | 0.5   | < LOQ  | Paclobutrazol                        | 0.01        | 0.01  | < LOQ  |
| Parathion-Methyl | 0.03        | 0.03  | < LOQ  | Pentachloronitrobenzene (Quintozene) | 0.02        | 0.02  | < LOQ  |
| Permethrin       | 0.1         | 0.04  | < LOQ  | Phenothrin                           | 0.025       | 0.025 | < LOQ  |
| Phosmet          | 0.05        | 0.01  | < LOQ  | Piperonyl butoxide                   | 1.25        | 0.2   | < LOQ  |
| Pirimicarb       | 0.01        | 0.01  | < LOQ  | Prallethrin                          | 0.1         | 0.05  | < LOQ  |
| Propiconazole    | 0.1         | 0.01  | < LOQ  | Propoxur                             | 0.01        | 0.01  | < LOQ  |
| Pyraclostrobin   | 0.01        | 0.01  | < LOQ  | Pyrethrins                           | 0.5         | 0.025 | < LOQ  |
| Pyridaben        | 0.02        | 0.02  | < LOQ  | Resmethrin                           | 0.05        | 0.02  | < LOQ  |
| Spinetoram       | 0.01        | 0.01  | < LOQ  | Spinosad                             | 0.01        | 0.01  | < LOQ  |
| Spirodiclofen    | 0.25        | 0.25  | < LOQ  | Spiromesifen                         | 0.03        | 0.03  | < LOQ  |
| Spirotetramat    | 0.01        | 0.01  | < LOQ  | Spiroxamine                          | 0.01        | 0.01  | < LOQ  |
| Tebuconazole     | 0.01        | 0.01  | < LOQ  | Tebufenozide                         | 0.01        | 0.01  | < LOQ  |
| Teflubenzuron    | 0.025       | 0.025 | < LOQ  | Tetrachlorvinphos                    | 0.01        | 0.01  | < LOQ  |
| Tetramethrin     | 0.05        | 0.05  | < LOQ  | Thiacloprid                          | 0.01        | 0.01  | < LOQ  |
| Thiamethoxam     | 0.01        | 0.01  | < LOQ  | Thiophanate-Methyl                   | 0.03        | 0.03  | < LOQ  |
| Trifloxystrobin  | 0.01        | 0.01  | < LOQ  |                                      |             |       |        |

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## Residual Solvent Results (ppm)

| Analyte                          | Max Allowed | LOQ | Result | Analyte                         | Max Allowed | LOQ  | Result |
|----------------------------------|-------------|-----|--------|---------------------------------|-------------|------|--------|
| 1-Butanol                        | 5000        | 500 | < LOQ  | 1-Pentanol                      | 5000        | 500  | < LOQ  |
| 1,2-Dichloroethane               | 1           | 1   | < LOQ  | 1,2-Dimethoxyethane             | 50          | 50   | < LOQ  |
| 1,4-Dioxane                      | 380         | 100 | < LOQ  | 2-Butanol                       | 5000        | 200  | < LOQ  |
| 2-Ethoxyethanol                  | 160         | 30  | < LOQ  | 2-Methyl-1-Propanol             | 500         | 500  | < LOQ  |
| 2-Methylbutane (Isopentane)      | 600         | 200 | < LOQ  | 2-Methylpentane                 | 50          | 30   | < LOQ  |
| 2-Propanol (IPA)                 | 500         | 200 | < LOQ  | 2,2-Dimethylbutane              | 50          | 30   | < LOQ  |
| 2,2-Dimethylpropane (Neopentane) | 750         | 200 | < LOQ  | 2,3-Dimethylbutane              | 50          | 30   | < LOQ  |
| 3-Methylpentane                  | 50          | 30  | < LOQ  | Acetone                         | 750         | 10   | 373    |
| Acetonitrile                     | 100         | 100 | < LOQ  | Benzene                         | 1           | 1    | < LOQ  |
| Butanes                          | 500         | 400 | < LOQ  | Chloroform                      | 1           | 1    | < LOQ  |
| Cyclohexane                      | 470         | 200 | < LOQ  | Dimethyl Sulfoxide              | 5000        | 500  | < LOQ  |
| Ethanol                          | 1000        | 200 | < LOQ  | Ethyl Acetate                   | 400         | 200  | < LOQ  |
| Ethyl Benzene                    | 200         | 200 | < LOQ  | Ethyl Ether                     | 500         | 200  | < LOQ  |
| Ethylene Glycol                  | 200         | 200 | < LOQ  | Ethylene Oxide                  | 1           | 1    | < LOQ  |
| Hexanes                          | 150         | 150 | < LOQ  | Isopropylbenzene (Cumene)       | 70          | 30   | < LOQ  |
| Methanol                         | 250         | 200 | < LOQ  | Methylene Chloride              | 1           | 1    | < LOQ  |
| Methylpropane (Isobutane)        | 300         | 200 | < LOQ  | n-Butane                        | 200         | 200  | < LOQ  |
| n-Heptane                        | 500         | 200 | < LOQ  | n-Hexane                        | 50          | 30   | < LOQ  |
| n-Pentane                        | 750         | 200 | < LOQ  | N,N-Dimethylacetamide           | 200         | 200  | < LOQ  |
| N,N-Dimethylformamide            | 200         | 200 | < LOQ  | Pentanes                        | 750         | 600  | < LOQ  |
| Propane                          | 500         | 200 | < LOQ  | Propyl Acetate                  | 5000        | 500  | < LOQ  |
| Pyridine                         | 200         | 50  | < LOQ  | Tetrahydrofuran                 | 720         | 100  | < LOQ  |
| Toluene                          | 150         | 100 | < LOQ  | Total Residual Solvents         | 5000        | 5000 | < LOQ  |
| Total Xylenes                    | 400         | 400 | < LOQ  | Total Xylenes and Ethyl Benzene | 600         | 600  | < LOQ  |
| Trichloroethylene                | 1           | 1   | < LOQ  |                                 |             |      |        |