

# SAFETY DATA SHEET

Classified According to OSHA Hazard Communication Standard (HCS)



## SECTION 1: Identification

### 1.1. Product Identifier

**Trade Name or Designation:** Limonene  
Isolate

**Product Number:** TTI-LIMO

**Other Identifying Product Numbers:** TTI-LIMO-02, TTI-LIMO-05, TTI-LIMO-120, TTI-LIMO-15, TTI-LIMO-30, TTI-LIMO-480

### 1.2. Recommended Use and Restrictions on Use

This product is intended for use only by adults 21 or older. For lawful use only. This product is concentrated and should not be used undiluted. Not for use with tobacco or nicotine. Avoid contact with the skin, eyes, wood surfaces, and fabrics. Keep out of reach of children and pets. Consumers should determine and conduct their own safety standards and testing. The United States Food and Drug Administration, and Center for Disease Control and Prevention, and multiple state governments are investigating numerous instances of severe respiratory illnesses and deaths associated with the use of vaping products. Symptoms include breathing difficulty, shortness of breath, chest pain, mild to moderate gastrointestinal illness, fever, or fatigue. To date, True Terpenes has not received any evidence to suggest that this product has caused any adverse health consequences. Do not use this product if you are pregnant, nursing or a person with or at risk of serious health conditions including but not limited to: heart disease, high blood pressure, diabetes, respiratory illness, or a person taking medicine for depression or asthma. Discontinue use and consult your doctor if an adverse reaction occurs. This product is not intended to diagnose, treat, cure or prevent any disease. This product has not been evaluated for safe use in e-cigarettes or any vaping application where the product(s) is/are intentionally vaporized and inhaled. Multiple state governments have banned the sale of flavors, including terpenes, in vaping applications. These laws are in flux.

### 1.3. Details of the Supplier of the Safety Data Sheet

**Company:** True Terpenes  
**Address:** 2416 N Hayden Island Dr.

Portland, OR 97217 USA

**Telephone:** 888-954-8550

### 1.4. Emergency Telephone Number (24 hours)

|                          |                 |
|--------------------------|-----------------|
| CHEMTREC (USA)           | 800-424-9300    |
| CHEMTREC (International) | 1+ 703-527-3887 |

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## SECTION 2: Hazard(s) Identification

### 2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

| Hazard Class                                   | Category   | Hazard Statements | Precautionary Statements:  |
|--|------------|-------------------|--|
| Skin Corrosion / Irritation                    | Category 2 | H315              | P264, P280, P302+P352, P321, P332+P313, P362   |
| Respiratory Sensitizer                         | Category 1 | H334              | P261, P285, P304+P341, P342+P311, P501   |
| Skin Sensitizer                                | Category 1 | H317              | P261, P272, P280, P302+P352, P332+P313, P321, P363, P501                             |
| Aspiration Hazard                              | Category 1 | H304              | P301+P310, P331, P405, P501  |
| Flammable Liquids                              | Category 3 | H226              | P210, P233, P240, P241, P242, P243, P280, P303+P361+P353, P370+P378, P403+P235, P501 |
| Hazardous to the Aquatic Environment (Acute)   | Category 1 | H400              | P273, P391, P501   |
| Hazardous to the Aquatic Environment (Chronic) | Category 1 | H410              | P273, P391, P501   |

### 2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

| Hazard Number | Hazard Statement   |
|---------------|--|
| H226          | Flammable liquid and vapor.  |
| H304          | May be fatal if swallowed and enters airways.                              |
| H315          | Causes skin irritation.  |
| H317          | May cause an allergic skin reaction.                                       |
| H334          | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H400          | Very toxic to aquatic life.  |
| H410          | Very toxic to aquatic life with long lasting effects.                      |

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## Precautionary Statements:

| Precautionary Number | Precautionary Statement   |
|----------------------|---|
| P210                 | Keep away from heat, sparks and open flame. No smoking.   |
| P233                 | Keep container tightly closed.  |
| P240                 | Ground container and receiving equipment.   |
| P241                 | Use explosion-proof equipment.  |
| P242                 | Use only non-sparking tools.  |
| P243                 | Take precautionary measures against static discharge.   |
| P261                 | Avoid breathing fumes, mist, vapors, or spray.  |
| P264                 | Wash arms, hands and face thoroughly after handling.  |
| P272                 | Contaminated work clothing must not be allowed out of the workplace.                                  |
| P273                 | Avoid release to the environment.   |
| P280                 | Wear protective gloves and eye protection.  |
| P285                 | In case of inadequate ventilation wear respiratory protection.  |
| P301+P310            | IF SWALLOWED: Immediately call a POISON CENTER or physician.  |
| P302+P352            | IF ON SKIN: Wash with plenty of soap and water.   |
| P303+P361+P353       | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.          |
| P304+P341            | IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. |
| P321                 | Specific treatment (Wash areas of contact with water.).   |
| P331                 | Do NOT induce vomiting.   |
| P332+P313            | If skin irritation occurs: Get medical attention.   |
| P342+P311            | If experiencing respiratory symptoms: Call a POISON CENTER or physician.                              |
| P362                 | Take off contaminated clothing and wash it before reuse.  |
| P363                 | Wash contaminated clothing before reuse.  |
| P370+P378            | In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.                              |
| P391                 | Collect spillage.   |
| P403+P235            | Store in a well-ventilated place. Keep cool.  |
| P405                 | Store locked up.  |
| P501                 | Dispose of contents in accordance with local, state, federal and international regulations.           |

## 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Substance or Mixture

| Chemical Name | Formula                         | Molecular Weight | CAS Number |
|---------------|---------------------------------|------------------|------------|
| Limonene      | C <sub>10</sub> H <sub>16</sub> | 136.23 g/mol     | 5989-27-5  |

Exact percentage (concentration) of composition has been withheld as a trade secret.

Flavor is Our Passion. Quality is Our Promise

Third-Party Audited and Certified ISO 9001:2015 & FSSC 22000

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## SECTION 4: First-Aid Measures

### 4.1. General First Aid Information

**Eye Contact:** Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

**Inhalation:** IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

**Skin Contact:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May cause skin irritation.

**Ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or physician. Dilute immediately with water or milk. Do not induce vomiting. Call a physician if necessary.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. **EYE CONTACT:** May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. **SKIN CONTACT:** May cause skin irritation. **INHALATION:** May cause irritation. **INGESTION:** May cause nausea, diarrhea.

### 4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water.).

## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing Media

In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Carbon dioxide, dry chemical, alcohol foam, water spray.

### 5.2. Specific Hazards Arising from the Substance or Mixture

Flammable liquid and vapor. Vapors can flow along surfaces to distant ignition source and flashback. Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills or vapors away from fire.

### 5.3. Special Protective Equipment for Firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## SECTION 6: Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

### 6.2. Cleanup and Containment Methods and Materials

Remove all sources of ignition. Contain spill. Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal in an approved waste disposal facility. Ventilate area of spill. Have extinguishing agent available in case of fire. Use non-sparking tools and equipment. Dispose of in accordance with local regulations.

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## SECTION 7: Handling and Storage

### 7.1. Precautions for Safe Handling and Storage Conditions

Store locked up in original container with lid securely tightened. Store in a cool dry place away from heat, open flame, sunlight, combustible materials, hot surfaces, and other sources of ignition in a secure, preferably flammable, storage area. As with all chemicals, use PPE and wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Empty containers may be hazardous since they retain product residues.

## SECTION 8: Exposure Controls / Personal Protection

### 8.1 Control Parameters

| Chemical Name       | Limit Type | Country | Exposure Limit | Information Source |
|---------------------|------------|---------|----------------|--------------------|
| Data not available. |            |         |                |                    |

### 8.2. Exposure Controls

**Engineering Controls:** A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

**Respiratory Protection:** In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn.

**Skin Protection:** Wear protective gloves and eye protection. Chemical resistant gloves, PVA or Nitrile rubber.

**Eye Protection:** Wear protective gloves and eye protection. Safety glasses or goggles.

### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn. Chemical resistant gloves, PVA or Nitrile rubber. Safety glasses or goggles.

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## SECTION 9: Physical and Chemical Properties

### 9.1. Basic Physical and Chemical Properties

**Appearance:** Colorless to pale yellow liquid

**Physical State:** Liquid

**Odor:** Fresh, light, mild orange

**Odor Threshold:** Data not available.

**pH:** Data not available.

**Melting/Freezing Point:** Data not available.

**Initial Boiling Point/Range:** 175°C - 176°C

**Flash Point:** 110°F

**Evaporation Rate:** Data not available.

**Flammability:** Data not available.

**Flammability/Explosive Limits:** Data not available.

**Vapor Pressure:** Data not available.

**Vapor Density:** Data not available.

**Relative Density:** 0.84 at 25°C

**Solubility:** Insoluble in water and propylene glycol. Miscible with alcohol, most fixed oils, and mineral oil. SI

**Partition Coefficient:** Data not available.

**Auto-Ignition Temperature:** Data not available.

**Decomposition Temperature:** Data not available.

**Viscosity:** Data not available.

**Explosive Properties:** Data not available.

**Oxidizing Properties:** Data not available.

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity and Chemical Stability

May form flammable/explosive vapour-air mixture.

### 10.2. Possibility of Hazardous Reactions

Data not available.

### 10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Direct sunlight, extremely high or low temperatures, heat, sparks, open flame, strong acids and strong bases.

### 10.4. Hazardous Decomposition Products

Carbon oxides may form upon decomposition.

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## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

**Acute Toxicity - Oral Exposure:**

Not applicable.

**Acute Toxicity - Dermal Exposure:**

Not applicable.

**Acute Toxicity - Inhalation Exposure:**

Not applicable.

**Acute Toxicity - Other Information:**

LD50, Oral (calculated): 4400 mg/kg

**Skin Corrosion and Irritation:**

Causes skin irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (Wash areas of contact with water.). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

**Serious Eye Damage and Irritation:**

Not applicable.

**Respiratory Sensitization:**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Avoid breathing fumes, mist, vapors, or spray. In case of inadequate ventilation wear respiratory protection. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Dispose of contents in accordance with local, state, federal and international regulations.

**Skin Sensitization:**

May cause an allergic skin reaction. Avoid breathing fumes, mist, vapors, or spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Specific treatment (Wash areas of contact with water.). Wash contaminated clothing before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

**Germ Cell Mutagenicity:**

Not applicable.

**Carcinogenicity:**

Not applicable.

**Reproductive Toxicity:**

Not applicable.

**Specific Target Organ Toxicity from Single Exposure:**

Not applicable.

**Specific Target Organ Toxicity from Repeated Exposure:**

Not applicable.

**Aspiration Hazard:**

May be fatal if swallowed and enters airways. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

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## Additional Toxicology Information:

Data not available.

## SECTION 12: Ecological Information

### 12.1. Ecotoxicity

Very toxic to aquatic life. Avoid release to the environment. Collect spillage. Dispose of contents in accordance with local, state, federal and international regulations. Very toxic to aquatic life with long lasting effects. Avoid release to the environment. Collect spillage. Dispose of contents in accordance with local, state, federal and international regulations.

### 12.2. Persistence and Degradability

Data not available.

### 12.3. Bioaccumulative Potential

Data not available.

### 12.4. Mobility in Soil

Data not available.

### 12.5. Other Adverse Ecological Effects

Data not available.

## SECTION 13: Disposal Considerations

### 13.1. Waste Treatment Methods

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dispose of contaminated packaging as unused product.

## SECTION 14: Transportation Information

### 14.1. Transportation by Land-Department of Transportation (DOT, United States of America)

**Sizes:** 2 mL, 5 mL, 15 mL, 30 mL, 120 mL, 480 mL

**UN Number:** UN2052

**Proper Shipping Name:** Dipentene

**Hazard Class:** 3

**Packing Group:** III

**Hazard Label(s):**





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## 14.2. Transportation by Air - International Air Transport Association (IATA)

**Sizes:** 2 mL, 5 mL, 15 mL, 30 mL, 120 mL, 480 mL

**UN Number:** UN2052

**Proper Shipping Name:** Dipentene

**Hazard Class:** 3

**Packing Group:** III

**Hazard Label(s):**



## 14.3 Transportation of Dangerous Goods (TDG, Canada)

**Sizes:** 2 mL, 5 mL, 15 mL, 30 mL, 120 mL, 480 mL

**UN Number:** UN2052

**Proper Shipping Name:** DIPENTENE

**Hazard Class:** 3

**Packing Group:** III

**Hazard Label(s):**



## SECTION 15: Regulatory Information

### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

### 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Not listed.

### 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Not listed.

### 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Not listed.

### 15.5. Massachusetts Right-to-Know Substance List

Not listed.

### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Not listed.

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## 15.7. New Jersey Worker and Community Right-to-Know Components

Limonene (CAS # 5989-27-5): sn 0792

## 15.8. California Proposition 65

Not listed.

## 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Limonene (CAS # 5989-27-5): Present (DSL)

## 15.10. United States of America Toxic Substances Control Act (TSCA) List

Limonene (CAS # 5989-27-5): Present

## 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Limonene (CAS # 5989-27-5): 205-341-0

Limonene (CAS # 5989-27-5): 227-813-5

## SECTION 16: Other Information

### 16.1. Full Text of Hazard Statements and Precautionary Statements

Flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Very toxic to aquatic life with long lasting effects.

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

IF SWALLOWED: Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Specific treatment (Wash areas of contact with water.). Do NOT induce vomiting. If skin irritation occurs: Get medical attention. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Take off contaminated clothing and wash it before reuse. In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Collect spillage.

Store in a well-ventilated place. Keep cool. Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

### 16.2. Miscellaneous Hazard Classes

**Canadian Carcinogenicity Hazard Class:** Not Applicable.

**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

**Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.

**Biohazardous Infectious Materials Hazard Class:** Not Applicable.

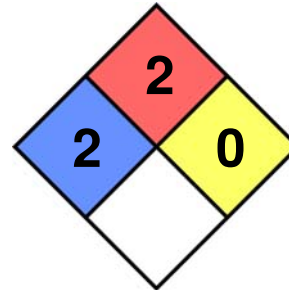
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## 16.3. National Fire Protection Association (NFPA) Rating

**Health:** 2  
**Flammability:** 2  
**Reactivity:** 0  
**Special Hazard:**



## 16.4. Document Revision

**Last Revision Date:** 2020-07-05

### DISCLAIMER

True Terpenes cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for use, handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on knowledge and experience currently available. To date, True Terpenes has not received any evidence to suggest that this product has caused any adverse health consequences. The above information relates only to this product and not to its use in combination with any other material or any particular process, and is designed only as guidance for the handling, use, processing, storage, transportation, and disposal. It should not be considered as a guarantee or quality specification. This product has not been evaluated for safe use in e-cigarettes or any vaping application where the product(s) is/are intentionally vaporized and inhaled. True Terpenes has performed no testing on these products in e-cig/vaping applications. It is the sole responsibility of the individual(s) purchasing this product to assess its safety in the final application. The above information is based on data provided by and collected from recognized sources such as distributors, manufacturers, and technical groups and is considered to be accurate to the best of True Terpenes' knowledge-based upon current information as of the date of this document. It is the responsibility of the user to review all safety information about this product and determine its safety and suitability in their own uses, processes, and operations. Appropriate warnings and safe handling procedures should be provided to all handlers and users, taking into account the intended use and the specific conditions and factors relating to such use in accordance with all applicable laws and regulations.