

SECTION 1: Identification**1.1 Product identifier**

Product name ATF
Brand True Terpenes

1.4 Supplier's details

Name True Terpenes
Address Portland , Oregon
Telephone (888) 954-8550
email info@TrueTerpenes.com

1.5 Emergency phone number(s)

Poison Control Help Line:
1 (800) 222-1222

SECTION 2: Hazard identification**2.1 Classification of the substance or mixture**

- Acute toxicity, dermal (chapter 3.1), Cat. 4
- Acute toxicity, oral (chapter 3.1), Cat. 5
- Eye damage/irritation (chapter 3.3), Cat. 2A
- Flammable liquids (chapter 2.6), Cat. 4
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 3
- Skin corrosion/irritation (chapter 3.2), Cat. 2
- Aspiration hazard (chapter 3.10), Cat. 1
- Flammable liquids (chapter 2.6), Cat. 3
- Sensitization, skin (chapter 3.4), Cat. 1
- Acute toxicity, dermal (chapter 3.1), Cat. 5
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1

2.2 GHS label elements, including precautionary statements**Pictogram****Signal word****Danger**

Hazard statement(s)

H226	Flammable liquid and vapor
H227	Combustible liquid
H303	May be harmful if swallowed
H303+H313	May be harmful if swallowed or in contact with skin
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H313	May be harmful in contact with skin
H315	Causes skin irritation
H315+H320	Causes skin and eye irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P264	Wash ... thoroughly after handling.
P273	Avoid release to the environment.
P233	Keep container tightly closed.
P223	Do not allow contact with water.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P240	Ground/bond container and receiving equipment.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P241	Use explosion-proof electrical/ventilating/lighting/.../equipment.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P321	Specific treatment (see ... on this label).
P242	Use only non-sparking tools.
P312	Call a POISON CENTER/doctor/... if you feel unwell.
P391	Collect spillage.
P243	Take precautionary measures against static discharge.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P337+P313	If eye irritation persists: Get medical advice/attention.
P272	Contaminated work clothing should not be allowed out of the workplace.
P362+P364	Take off contaminated clothing and wash it before reuse.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P370+P378	In case of fire: Use ... to extinguish.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P403+P235	Store in a well ventilated place. Keep cool.
P331	Do NOT induce vomiting.
P501	Dispose of contents/container to ...
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention.
P362	Take off contaminated clothing.
P405	Store locked up.

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Hazardous components****1. Linalool**

EC no. 201-134-4
CAS no. 78-70-6

- Acute toxicity, dermal (chapter 3.1), Cat. 4
- Acute toxicity, oral (chapter 3.1), Cat. 5
- Eye damage/irritation (chapter 3.3), Cat. 2A
- Flammable liquids (chapter 2.6), Cat. 4
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 3
- Skin corrosion/irritation (chapter 3.2), Cat. 2

H227 Combustible liquid
H303 May be harmful if swallowed
H312 Harmful in contact with skin
H315 Causes skin irritation
H315+H320 Causes skin and eye irritation
H319 Causes serious eye irritation
H402 Harmful to aquatic life

2. Alpha Pinene

CAS no. 80-56-8

- Aspiration hazard (chapter 3.10), Cat. 1
- Flammable liquids (chapter 2.6), Cat. 3
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 3
- Sensitization, skin (chapter 3.4), Cat. 1
- Skin corrosion/irritation (chapter 3.2), Cat. 2

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
H402 Harmful to aquatic life

3. Myrcene

CAS no. 123-35-3

- Aspiration hazard (chapter 3.10), Cat. 1
- Eye damage/irritation (chapter 3.3), Cat. 2A
- Flammable liquids (chapter 2.6), Cat. 3

- Skin corrosion/irritation (chapter 3.2), Cat. 2

H226	Flammable liquid and vapor
H226	Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation

4. Limonene

EC no.	227-813-5
CAS no.	5989-27-5

- Acute toxicity, dermal (chapter 3.1), Cat. 5
- Acute toxicity, oral (chapter 3.1), Cat. 5
- Aspiration hazard (chapter 3.10), Cat. 1
- Flammable liquids (chapter 2.6), Cat. 3
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1
- Sensitization, skin (chapter 3.4), Cat. 1
- Skin corrosion/irritation (chapter 3.2), Cat. 2

H226	Flammable liquid and vapor
H303+H313	May be harmful if swallowed or in contact with skin
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

5. Beta Caryophyllene

CAS no.	87-44-5
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6. Terpinolene

EC no.	209-578-0
CAS no.	586-62-9

- Flammable liquids (chapter 2.6), Cat. 4
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1

H227	Combustible liquid
H410	Very toxic to aquatic life with long lasting effects

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
If inhaled	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.
In case of skin contact	Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.
In case of eye contact	Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eyelids.
If swallowed	Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.
Personal protective equipment for first-aid responders	No data available.

4.2 Most important symptoms/effects, acute and delayed

No data available.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

SECTION 5: Fire-fighting measures**5.1 Suitable extinguishing media**

Water spray, fog, CO₂, dry chemical, or alcohol resistant foam.

5.2 Specific hazards arising from the chemical

Linalool: Static charges generated by emptying package in or near flammable vapor may cause flash fire. Fire may produce irritating, corrosive and / or toxic gases.

Alpha Pinene: Carbon oxides.

Limonene: Static charges generated by emptying package in or near flammable vapor may cause flash fire. Fire may produce irritating, corrosive and / or toxic gases.

5.3 Special protective actions for fire-fighters

In case of fire and / or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep runoff water out of sewers and water sources. Dike for water control.

Further information

No data available.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid release to the environment. Retain and dispose of contaminated wash water. Contact local authorities in case of spillage to drain / aquatic environment.

6.3 Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Prevent product from entering drains. Do not allow material to contaminate ground water system. Absorb in vermiculite, dry sand or earth and place into containers.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Collect and dispose of spillage as indicated in section 12 of the SDS.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Do not handle or store near an open flame, heat or other sources of ignition. All equipment used when handling the product must be grounded. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling. Take precautionary measures against static discharges. Avoid breathing vapor.

7.2 Conditions for safe storage, including any incompatibilities

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release.
Store in a cool, well-ventilated area.

Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection**8.2 Appropriate engineering controls**

No data available.

8.3 Individual protection measures, such as personal protective equipment (PPE)**Eye/face protection**

No data available.

Skin protection

No data available.

Body protection

No data available.

Respiratory protection

No data available.

Thermal hazards

No data available.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties**

Appearance/form (physical state, color, etc.)	Clear, light yellow liquid
Odor	Characteristic
Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.

Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	No data available.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Other safety information

No data available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

No data available.

10.2 Chemical stability

Material is stable under normal conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Linalool: Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. Strong oxidizing agents.

Alpha Pinene: Vapors may form explosive mixture with air. Heat, flames and sparks. Strong oxidizing agents.

Myrcene: Strong oxidizing agents. Heat, flames and sparks.

10.6 Hazardous decomposition products

Linalool: No data available.

Limonene: No hazardous decomposition products if stored and handled as indicated.

SECTION 11: Toxicological information**Information on toxicological effects****Acute toxicity**

Linalool: LD50 Oral: Rat, 2,790 mg/kg
LD50 Dermal: Rabbit, 2,000 mg/kg

Alpha Pinene: No data available.

Limonene: Maybe fatal if swallowed and enters airways. May be harmful in contact with skin. May cause an allergic skin reaction.

Skin corrosion/irritation

Linalool: Causes skin irritation.
Guinea Pig - skin irritation, 24h, Draize Test
Rabbit - irritant (OECD Guideline 405)

Alpha Pinene: No data available.

Serious eye damage/irritation

Linalool: Causes serious eye irritation.
Rabbit - moderate eye irritation, Draize Test
Rabbit - slightly irritating (OECD Guideline 405)

Alpha Pinene: No data available.

Limonene: Direct contact with eyes may cause temporary irritation.
Eyes - rabbit. Result: No eye irritation.
(OECD Test Guideline 405)

Respiratory or skin sensitization

Linalool: Patch-test / Human: Non-sensitizing
Draize test / Guinea Pig: Non-sensitizing

Alpha Pinene: No data available.

Limonene: May cause an allergic skin reaction.
Mouse. Result: May cause sensitisation by skin contact.
(OECD Test Guideline 429)

Germ cell mutagenicity

Linalool: Results from a number of mutagenicity studies with microorganisms, mammalian cell cultures and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

Alpha Pinene: No data available.

Limonene: Mouse
Lymphocyte
Result: Negative

Rat - Male
Result: Negative

Carcinogenicity

Linalool: OSHA: Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed.

Alpha Pinene: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Myrcene: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Limonene: IARC Monographs: Overall Evaluation of Carcinogenicity - CARVENE (CAS 5989-27-5) 3 Not classifiable as to carcinogenicity to humans.

OSHA: Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed.

Beta Caryophyllene: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probably, possibly or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probably, possibly or confirmed human carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probably, possibly or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probably, possibly or confirmed human carcinogen by OSHA.

Terpinolene: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Reproductive toxicity

Linalool: This product is not expected to cause reproductive or developmental effects.

Alpha Pinene: No data available.

Summary of evaluation of the CMR properties

Linalool: No data available.

STOT-single exposure

Linalool: Not Classified.

Alpha Pinene: No data available.

Limonene: Not classified.

STOT-repeated exposure

Linalool: Not Classified.

Alpha Pinene: No data available.

Limonene: Repeated dose toxicity - mouse - male and female - No observed adverse effect level - 1,650 mg/kg -
Lowest observed adverse effect level - 3,300 mg/kg.

Aspiration hazard

Linalool: No data available.

SECTION 12: Ecological information**Toxicity**

Linalool: Activated sludge of a predominantly domestic sewage: EC10, > 100 mg/l, 3 hours

Green Algae (*chlamydomonas variabilis*): EC50, 88.3 mg/l, 96 hours DIN 38412 Part 9 static. The details of the toxic effect related to the nominal concentration.

Daphnia magna: EC50, 20 mg/l, 48 hours DIN 38412 Part 11 static. The details of the toxic effect related to the nominal concentration.

Ide, silver or golden orfe (*leuciscus idus*): LC50, 22 - 46 mg/l, 96 hours DIN 38412 Part 15 static. The details of the toxic effect related to the nominal concentration.

Fish: LC50-R, 27.8 mg/l, 96 hours.

Alpha Pinene: No data available.

Limonene: Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Persistence and degradability

Linalool: Biological/Abiological Degradation

Test method: OECD 301D; EEC 92/69, C.4-E (aerobic), municipal sewage treatment plant effl.

Method of analysis: BOD of the ThOD

Degree of elimination: 60 - 70% (28 d)

Evaluation: Readily biodegradable (according to OECD criteria)

Alpha Pinene: No data available.

Limonene: Biodegradability: Result: 71% - Readily biodegradable. (OECD Test Guideline 301B)

Bioaccumulative potential

Linalool: Significant accumulation in organisms is not to be expected.

Alpha Pinene: No data available.

Mobility in soil

Linalool: No data available.

Results of PBT and vPvB assessment

Linalool: No data available.

Other adverse effects

Linalool: No data available.

Limonene: EC50 Water Flea (*Daphnia pulex*) 69.6 mg/l, 48 hoursLC50 Fathead minnow (*Pimephales promelas*) 0.619 - 0.796 mg/l, 96 hoursLC50 Rainbow trout, donaldson trout (*Oncorhynchus mykiss*) 35 mg/l, 4 days

EC50 Activated sludge 3.94 mg/l

SECTION 13: Disposal considerations

Disposal of the product

Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers / water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents / container in accordance with local / regional / national / international regulations.

Disposal of contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residues, follow label warnings even after container is emptied.

Waste treatment

Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see Disposal Instructions).

Sewage disposal

No data available.

Other disposal recommendations

No data available.

SECTION 14: Transport information**DOT (US)**

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations specific for the product in question****CAA Section 112 HAPs List**

Not regulated.

CAA Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any reproductive harm.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Massachusetts Right to Know Components

Chemical name: α -Pinene
CAS number: 80-56-8

New Jersey Right to Know Components

Chemical Name: 7-Methyl-3-methyleneocta-1,6-diene,
CAS Number: 123-35-3. Chemical Name: Caryophyllene
CAS Number: 87-44-5. Chemical name: α -Pinene
CAS number: 80-56-8

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Pennsylvania Right to Know Components

Chemical Name: 7-Methyl-3-methyleneocta-1,6-diene,
CAS Number: 123-35-3. Chemical Name: Caryophyllene
CAS Number: 87-44-5. Chemical name: α -Pinene
CAS number: 80-56-8

Right to Know Components (Pennsylvania, New Jersey)

p-Mentha-1,4(8)-diene, CAS No. 586-62-9

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 302 Extremely Hazardous Substance

Not listed.

SARA 304 Emergency Release Notification

Not regulated.

SARA 311 / 312

No SARA hazards.

SARA 311 / 312 Hazardous Chemical

Yes

SARA 311 / 312 Hazards

Fire hazard, acute health hazard. Fire Hazard

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

SARA 313 (TRI Reporting)

Not regulated.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313. This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA Hazard Categories

Immediate Hazard - Yes

Delayed Hazard - No

Fire Hazard - Yes

Pressure Hazard - No

Reactivity Hazard - No

SDWA



Not regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt.D)

Not regulated.

US Federal Regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

US. California Proposition 65 CRT: Listed Substance

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed. CARVENE (CAS 5989-27-5)

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

SECTION 16: Other information

Issue Date: 11/01/2018

Revision Date: New Document

Version # 00

16.1 Further information/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 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 the best knowledge and experience currently available. 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 safe handling, use, processing, storage, transportation, and disposal and 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 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 safe handling, use, processing, storage, transportation, disposal, and should not be considered as a guarantee or quality specification. 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 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 processes and operations. Appropriate warnings and safe handling procedures should be provided to all



ATF
SAFETY DATA SHEET

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.