

TRUE TERPENES

Safety Data Sheet Jack

SECTION 1: Identification

1.1 GHS Product identifier

Product name Jack
Product number TTP-CR-v

Product number TTP-CR-JACK

1.3 Recommended use of the chemical and restrictions on use

This product is concentrated and should not be used undiluted. Based on your use of this product, determine appropriate warnings and directions for your products and applications; also determine safety standards and conduct testing. Avoid contact between this undiluted product and skin, eyes, wood surfaces, and fabrics. Keep this undiluted product away from children and pets. Discontinue use if any adverse reaction occurs. This product has not been evaluated for safe use in e-cigarettes, or in any nicotine-containing or smoking-cessation product. Not for use with tobacco or nicotine.

This product is not intended for use by those who are pregnant, nursing, or by those with serious health conditions including but not limited to high blood pressure and diabetes. This product is not intended to diagnose, treat, cure or prevent any disease.

Store in original container, sealed tightly, in a cool, dry place away from sunlight or heat sources. This product should not be used beyond its stated expiry date. Products made with this item should be tested to determine suitable shelf life.

1.4 Supplier's details

Name	True Terpenes
Address	8210 NE Mauzey Court
	Hillsboro Oregon 97124
	USA

Telephone

888-954-8550

1.5 Emergency phone number

Chemtrec USA: 800-424-9300 Chemtrec International: 1+ 703-527-3887

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Carcinogenicity, Cat. 2
- Eye damage/irritation, Cat. 2A
- Skin corrosion/irritation. Cat. 2
- Sensitization, skin, Cat. 1
- Specific target organ toxicity (repeated exposure), Cat. 1
- Specific target organ toxicity (single exposure), Cat. 2
- Toxic to reproduction, Cat. 2
- Flammable liquids, Cat. 3
- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

Danger

GHS label elements, including precautionary statements 2.2

Pictograms



Signal word

P272

P273

P280

Hazard statement(s)	
H226	Flammable liquid and vapor
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H371	May cause damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
Precautionary statement(s)	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment.

- Wear protective gloves/protective clothing/eye protection/face protection.
- IF ON SKIN: Wash with plenty of soap and water.
- P302+P352 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308+P311	IF exposed or concerned: Call a POISON CENTER/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P321	Specific treatment (Wash areas of contact with water).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	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/container in accordance with local, state, federal and international regulations.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Terpinolene	
Concentration	Not specified
EC no.	209-578-0
CAS no.	586-62-9

- Aspiration hazard, Cat. 1

- Flammable liquids, Cat. 4

- Hazardous to the aquatic environment, short-term (acute), Cat. 1

- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

- Sensitization, skin, Cat. 1B

H227	Combustible liquid
H304	May be fatal if swallowed and enters airways
H317	May cause an allergic skin reaction
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

2. Myrcene	
Concentration	Not specified
EC no.	204-622-5
CAS no.	123-35-3

- Flammable liquids, Cat. 3
- Skin corrosion/irritation, Cat. 2
- Eye damage/irritation, Cat. 2A

- Carcinogenicity, Cat. 2

- Toxic to reproduction, Cat. 2

- Aspiration hazard, Cat. 1

H226	Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

3. Ocimene	
Concentration	Not specified
EC no.	237-641-2
CAS no.	13877-91-3

- Flammable liquids, Cat. 3

- Self-heating substances and mixtures, Cat. 2
- Skin corrosion/irritation, Cat. 2
- Aspiration hazard, Cat. 1
- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 2

H226	Flammable liquid and vapor
H252	Self-heating in large quantities; may catch fire
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

4. Alpha-Phellandrene

Concentration	
EC no.	
CAS no.	

Not specified 202-792-5 99-83-2

- Aspiration hazard, Cat. 1 - Flammable liquids, Cat. 3

H226 H304 Flammable liquid and vapor May be fatal if swallowed and enters airways

5. Alpha-Pinene

Concentration EC no. CAS no. Not specified 201-291-9 80-56-8

- Skin corrosion/irritation, Cat. 2

- Sensitization, skin, Cat. 1

- Specific target organ toxicity (single exposure), Cat. 2
- Specific target organ toxicity (repeated exposure), Cat. 1
- Aspiration hazard, Cat. 1
- Flammable liquids, Cat. 3

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
H371	May cause damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

6. Beta-Pinene

Concentration	Not specified
EC no.	204-872-5
CAS no.	127-91-3

- Flammable liquids, Cat. 3

- Skin corrosion/irritation, Cat. 2

- Sensitization, skin, Cat. 1

- Aspiration hazard, Cat. 1

- Hazardous to the aquatic environment, short-term (acute), Cat. 1

- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

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
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

7. Delta-3-Carene

Concentration	Not specified
EC no.	236-719-3
CAS no.	13466-78-9

- Flammable liquids, Cat. 3

- Skin corrosion/irritation, Cat. 2
- Sensitization, skin, Cat. 1
- Aspiration hazard, Cat. 1

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
H412	Harmful to aquatic life with long lasting effects

8. Beta-caryophyllene Concentration EC no. CAS no.	Not specified 201-746-1 87-44-5
- Aspiration hazard, Cat. 1 - Sensitization, skin, Cat. 1B	
H304 H317	May be fatal if swallowed and enters airways May cause an allergic skin reaction
9. D-Limonene Concentration EC no. CAS no. Index no.	Not specified 227-813-5 5989-27-5 601-096-00-2
 Flammable liquids, Cat. 3 Aspiration hazard, Cat. 1 Skin corrosion/irritation, Cat. 2 Sensitization, skin, Cat. 1B Hazardous to the aquatic environmed Hazardous to the aquatic environmed 	
H226 H304 H315 H317 H400 H412 SCLs/M-factors/ATEs	Flammable liquid and vapor May be fatal if swallowed and enters airways Causes skin irritation May cause an allergic skin reaction Very toxic to aquatic life Harmful to aquatic life with long lasting effects M=1
10. Alpha-Terpinene Concentration EC no. CAS no. Index no.	Not specified 202-795-1 99-86-5 601-095-00-7
 Flammable liquids, Cat. 3 Acute toxicity, oral, Cat. 4 Aspiration hazard, Cat. 1 Sensitization, skin, Cat. 1 Hazardous to the aquatic environmed Eye damage/irritation, Cat. 2A 	ent, long-term (chronic), Cat. 2
H226 H302 H304 H317 H319	Flammable liquid and vapor Harmful if swallowed May be fatal if swallowed and enters airways May cause an allergic skin reaction Causes serious eye irritation

H401 H411 SCLs/M-factors/ATEs	Toxic to aquatic life Toxic to aquatic life with long lasting effects Oral: ATE = 680 mg/kg bw
 11. Camphene Concentration EC no. CAS no. Eye damage/irritation, Cat. 2A Flammable solids, Cat. 2 Hazardous to the aquatic environm 	
- Hazardous to the aquatic environm H228 H319 H400 H410	Flammable solid Causes serious eye irritation Very toxic to aquatic life Very toxic to aquatic life with long lasting effects
12. Gamma-Terpinene Concentration EC no. CAS no.	Not specified 202-794-6 99-85-4
- Flammable liquids, Cat. 3 - Toxic to reproduction, Cat. 2	
H226 H361 H401 H411	Flammable liquid and vapor Suspected of damaging fertility or the unborn child Toxic to aquatic life Toxic to aquatic life with long lasting effects

Trade secret statement (OSHA 1910.1200(i))

Exact percentage (concentration) of composition has been withheld as a trade secret. (OSHA 29 CFR 1910.1200 (i)(1)(i))

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with plenty of water for at least 15 minutes. Call a poison center or doctor if irritation develops or persists. Take off contaminated clothing and wash it before reuse.

	Acute and delayed symptoms and effects: Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.
In case of eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention/advice.
	Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
If swallowed	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

4.2 Most important symptoms/effects, acute and delayed

Causes skin irritation. Causes serious eye irritation. Causes damage to organs. 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 Indication of immediate medical attention and special treatment needed, if necessary Specific treatment (Wash areas of contact with water).

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

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

5.2 Specific hazards arising from the chemical

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

D-Limonene: Carbon oxides

5.3 Special protective actions for fire-fighters

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.

6.3 Methods and materials for containment and cleaning up

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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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

1. D-Limonene (CAS: 5989-27-5 EC: 227-813-5) TLV® (Inhalation): 20 ppm (ACGIH)

2. Alpha-Pinene (CAS: 80-56-8 EC: 201-291-9) TLV® (Inhalation): 20 ppm (ACGIH)

3. Beta-Pinene (CAS: 127-91-3 EC: 204-872-5) TLV® (Inhalation): 20 ppm (ACGIH)

8.2 Appropriate engineering controls

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

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear protective gloves and eye protection. Safety glasses or goggles.

Skin protection

Wear protective gloves and eye protection. Chemical resistant gloves, PVA or Nitrile rubber.

Respiratory protection

Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state
Appearance
Color
Odor
Odor threshold
Melting point/freezing point
Boiling point or initial boiling point and boiling range
Flammability
Lower and upper explosion limit/flammability limit
Flash point
Auto-ignition temperature
Decomposition temperature
рН
Kinematic viscosity

Liquid Clear, colorless to light yellow liquid Colorless to light yellow Citrus, Pine, Spicy / Herbal, Wood, Gas Data not available. Data not available.

Solubility Partition coefficient n-octanol/water (log value) Vapor pressure Evaporation rate Density and/or relative density Relative vapor density Particle characteristics Insoluble in water. Data not available. Data not available. Data not available. 0.852 g/mL at 20 degrees Celsius Data not available. Data not available.

SECTION 10: Stability and reactivity

10.1 Reactivity

May form flammable/explosive vapour-air mixture.

10.2 Chemical stability

Data not available.

10.3 Possibility of hazardous reactions Data not available.

10.4 Conditions to avoid

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.

10.5 Incompatible materials

Data not available.

D-Limonene: Strong oxidizing agents

10.6 Hazardous decomposition products

Carbon oxides may form upon decomposition.

SECTION 11: Toxicological information

Information on toxicological effects

Skin corrosion/irritation Irritating to skin.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitization

May cause an allergic skin reaction

Carcinogenicity

Myrcene

Suspected of causing cancer. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Reproductive toxicity

Myrcene, Gamma Terpinene

Suspected of damaging fertility or the unborn child

Specific target organ toxicity (STOT) - single exposure

May cause damage to organs.

Specific target organ toxicity (STOT) - repeated exposure

Causes damage to organs through prolonged or repeated exposure

SECTION 12: Ecological information

Toxicity

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.

Persistence and degradability

Data not available.

Bioaccumulative potential Data not available.

Mobility in soil

Data not available.

Other adverse effects

Data not available.

SECTION 13: Disposal considerations

Disposal methods

Waste treatment

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: Transport information

DOT (US)

UN Number: UN2319 Class: 3 Packing Group: III Proper Shipping Name: Terpene hydrocarbons, n.o.s. Marine pollutant: Yes (hazardous to aquatic life)

IMDG UN Number: UN2319 Class: 3 Packing Group: III EMS Number: F-E, S-D Proper Shipping Name: Terpene hydrocarbons, n.o.s. IATA UN Number: UN2319 Class: 3 Packing Group: III Proper Shipping Name: Terpene hydrocarbons, n.o.s.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components

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

SARA 313 Components

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 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

D-Limonene CAS Number: 5989-27-5

New Jersey Right To Know Components

Common name: TERPINOLENE CAS number: 586-62-9

Common name: alpha-PINENE CAS number: 80-56-8

D-Limonene CAS Number: 5989-27-5

Camphene CAS-No. 79-92-5

Pennsylvania Right To Know Components

Common name: TERPINOLENE CAS number: 586-62-9

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

D-Limonene CAS Number: 5989-27-5

Camphene CAS-No. 79-92-5

California Prop. 65 Components

Chemical name: Myrcene CAS number: 123-35-3 03/27/2015 - Cancer

Canadian Non-Domestic Substances List (NDSL)

Canadian Domestic Substances List (DSL)

Chemical name: Terpinolene CAS number: 586-62-9

Chemical name: Myrcene CAS number: 123-35-3

Chemical name: Ocimene CAS number: 13877-91-3

Chemical name: Alpha-Phellandrene CAS number: 99-83-2

Chemical name: Beta-Pinene CAS number: 127-91-3

Chemical name: Delta-3-Carene CAS number: 13466-78-9

Chemical name: Beta-Caryophyllene CAS number: 87-44-5

Chemical name: D-Limonene CAS number: 5989-27-5

Chemical name: Alpha-Terpinene CAS number: 99-86-5

Chemical name: Camphene CAS number: 79-92-5

Chemical name: Gamma-Terpinene CAS number: 99-85-4

EU Cosmetics Restricted Substances List, (EC) 2009/1223 Annex III

Chemical name/INN: Terpinolene CAS number: 586-62-9

Chemical name/INN: Delta-3-Carene CAS number: 13466-78-9

Chemical name/INN: D-Limonene CAS number: 5989-27-5

Chemical name/INN: Alpha-Terpinene

CAS number: 99-86-5

Chemical name/INN: Gamma-Terpinene CAS number: 99-85-4

US EPA TSCA public inventory

Chemical name: Terpinolene CAS number: 586-62-9

Chemical name: Myrcene CAS number: 123-35-3

Chemical name: Ocimene CAS number: 13877-91-3

Chemical name: Alpha-Phellandrene CAS number: 99-83-2

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

Chemical name: Beta-Pinene CAS number: 127-91-3

Chemical name: Delta-3-Carene CAS number: 13466-78-9

Chemical name: Beta-caryophyllene CAS number: 87-44-5

Chemical name: D-Limonene CAS number: 5989-27-5

Chemical name: Alpha-Terpinene CAS number: 99-86-5

Chemical name: Camphene CAS number: 79-92-5

Chemical name: Gamma-Terpinene CAS number: 99-85-4

California Proposition 65 Chemicals List

WARNING: This product can expose you to chemicals including beta-Myrcene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

EU Table of Harmonised Entries (Annex VI to CLP)

Chemical name: D-Limonene CAS number: 5989-27-5

Chemical name: Alpha-Terpinene CAS number: 99-86-5

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

WARNING

True Terpenes cannot anticipate all conditions under which this information and this product, or the products of other manufacturers in combination with this product, may be used. It is the user's responsibility to stay current with respect to applicable laws and regulatory investigations and findings, and to ensure safe conditions for use, handling, storage and disposal of the product. The user assumes all liability for loss, injury, damage or expense due to unauthorized or improper use, and True Terpenes disclaims all such liability. The information in this sheet was written based on knowledge and experience currently available. To date, True Terpenes has not received any evidence confirming 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.

True Terpenes has performed no testing on this product in e-cig/vaping applications. Applying heat to a compound or mixture of compounds may promote new product formation by thermal degradation. New products could include harmful or potentially harmful compounds.

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 publish 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 of this product, taking into account the intended use and the specific conditions and factors relating to such use in accordance with all applicable laws and regulations.