



## TRUE TERPENES

### Safety Data Sheet Apples & Bananas

---

#### SECTION 1: Identification

##### 1.1 GHS Product identifier

Product name Apples & Bananas

Product number TTP-ID-APBA

##### 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

# Safety Data Sheet

## Apples & Bananas

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

- Skin corrosion/irritation, Cat. 2
- Sensitization, skin, Cat. 1
- Flammable liquids, Cat. 3
- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

## 2.2 GHS label elements, including precautionary statements

### Pictograms



### Signal word

**Warning**

### Hazard statement(s)

H226	Flammable liquid and vapor
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

### Precautionary statement(s)

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.
P261	Avoid breathing dust/fume/gas/mist/vapors/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/eye protection/face protection.
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/shower.
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.
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.
P501	Dispose of contents/container in accordance with local, state, federal and international regulations.

---

## SECTION 3: Composition/information on ingredients

# Safety Data Sheet

## Apples & Bananas

### 3.2 Mixtures

#### Hazardous components

##### 1. D-Limonene

Concentration	Not specified
EC no.	227-813-5
CAS no.	5989-27-5
Index no.	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 environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), 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
H400	Very toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects
SCLs/M-factors/ATEs	M=1

##### 2. Isoamyl Acetate

Concentration	Not specified
EC no.	204-662-3
CAS no.	123-92-2
Index no.	607-130-00-2

- Flammable liquids, Cat. 3

H226	Flammable liquid and vapor
------	----------------------------

##### 3. Beta-caryophyllene

Concentration	Not specified
EC no.	201-746-1
CAS no.	87-44-5

- Aspiration hazard, Cat. 1
- Sensitization, skin, Cat. 1B

H304	May be fatal if swallowed and enters airways
H317	May cause an allergic skin reaction

##### 4. Humulene

Concentration	Not specified
---------------	---------------

# Safety Data Sheet

## Apples & Bananas

EC no. 229-816-7  
CAS no. 6753-98-6

- Flammable liquids, Cat. 4

H227 Combustible liquid

### 5. 2-methylbutyl acetate

Concentration Not specified  
EC no. 210-843-8  
CAS no. 624-41-9  
Index no. 607-130-00-2

- Flammable liquids, Cat. 3

H226 Flammable liquid and vapor

### 6. Trans-2 Hexenol

Concentration Not specified  
EC no. 213-191-2  
CAS no. 928-95-0

- Flammable liquids, Cat. 3

H226 Flammable liquid and vapor

### 7. Isoamyl Butyrate

Concentration Not specified  
EC no. 203-380-8  
CAS no. 106-27-4

- Flammable liquids, Cat. 3

H226 Flammable liquid and vapor  
H402 Harmful to aquatic life  
H412 Harmful to aquatic life with long lasting effects

### 8. Cis-3 Hexenol

Concentration Not specified  
EC no. 213-192-8  
CAS no. 928-96-1

- Flammable liquids, Cat. 3

H226 Flammable liquid and vapor

# Safety Data Sheet

## Apples & Bananas

### 9. Cis-3 Hexenyl Acetate

Concentration	Not specified
EC no.	222-960-1
CAS no.	3681-71-8

- Flammable liquids, Cat. 3

H226 Flammable liquid and vapor

### 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 several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center or doctor if you feel unwell.  Acute and delayed symptoms and effects: May cause 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. 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

# Safety Data Sheet

## Apples & Bananas

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. Isoamyl acetate (CAS: 123-92-2)

TWA (Inhalation): 50 ppm; 270 mg/m<sup>3</sup>; AU (AU/SWA)

STEL (Inhalation): 100 ppm; 541 mg/m<sup>3</sup>; AU (AU/SWA)

IOELV-LTEL [Isopentyl acetate] (Inhalation): 270 mg/m<sup>3</sup>; EU (EU/OSHA)

List no. 1 under Council Directive 98/24/EC as amended. List last updated on 8/29/2023.

IOELV-LTEL [Isopentyl acetate] (Inhalation): 50 ppm; EU (EU/OSHA)

List no. 1 under Council Directive 98/24/EC as amended. List last updated on 8/29/2023.

IOELV-STEL [Isopentyl acetate] (Inhalation): 540 mg/m<sup>3</sup>; EU (EU/OSHA)

List no. 1 under Council Directive 98/24/EC as amended. List last updated on 8/29/2023.

# Safety Data Sheet

## Apples & Bananas

IOELV-STEL [Isopentyl acetate] (Inhalation): 100 ppm; EU (EU/OSHA)  
List no. 1 under Council Directive 98/24/EC as amended. List last updated on 8/29/2023.

PEL (Inhalation): 100 ppm; US (US/OSHA)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

PEL (Inhalation): 525 mg/m<sup>3</sup>; US (US/OSHA)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

PEL (Inhalation): 50 ppm, (ST) 100 ppm; US (Cal/OSHA)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

REL (Inhalation): 100 ppm; US (NIOSH)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

### 3. 2-methylbutyl acetate (CAS: 624-41-9 EC: 210-843-8)

TLV® (Inhalation): 100 ppm (ACGIH)  
short term. Upper Respiratory Tract irritation

TLV® (Inhalation): 50 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	Liquid
Appearance	Clear, colorless to pale yellow liquid
Color	Colorless to pale yellow
Odor	Banana Pudding, Baked Apple, Sweet Cream, Warm Spice
Odor threshold	Data not available.
Melting point/freezing point	Data not available.
Boiling point or initial boiling point and boiling range	Data not available.
Flammability	Data not available.
Lower and upper explosion limit/flammability limit	Data not available.
Flash point	Data not available.
Auto-ignition temperature	Data not available.
Decomposition temperature	Data not available.
pH	Data not available.
Kinematic viscosity	Data not available.

# Safety Data Sheet

## Apples & Bananas

Solubility	Insoluble in water.
Partition coefficient n-octanol/water (log value)	Data not available.
Vapor pressure	Data not available.
Evaporation rate	Data not available.
Density and/or relative density	0.86 g/mL at 20°C
Relative vapor density	Data not available.
Particle characteristics	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.

##### Respiratory or skin sensitization

May cause an allergic skin reaction

---

### 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.

# Safety Data Sheet

## Apples & Bananas

### 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.

# Safety Data Sheet

## Apples & Bananas

### SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

### Massachusetts Right To Know Components

D-Limonene

Chemical name: iso-Amyl acetate

CAS number: 123-92-2

### New Jersey Right To Know Components

D-Limonene

Common name: ISOAMYL ACETATE

CAS number: 123-92-2

2-Methylbutyl acetate

CAS-No. 624-41-9

### Pennsylvania Right To Know Components

D-Limonene

Chemical name: 1-Butanol, 3-methyl-, acetate

CAS number: 123-92-2

2-Methylbutyl acetate

CAS-No. 624-41-9

Chemical name: 3-Hexen-1-ol, (z)-

CAS number: 928-96-1

### California Prop. 65 Components

#### Canadian Non-Domestic Substances List (NDSL)

Chemical name: 1,4,8-Cycloundecatriene, 2,6,6,9-tetramethyl-, (E,E,E)-

CAS number: 6753-98-6

#### Canadian Domestic Substances List (DSL)

Chemical name: Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)-

CAS number: 5989-27-5

Chemical name: 1-Butanol, 3-methyl-, acetate

CAS number: 123-92-2

Chemical name: Bicyclo[7.2.0]undec-4-ene, 4,11,11-trimethyl-8-methylene-, [1R-(1R,4E,9S)]-

CAS number: 87-44-5

Chemical name: 1-Butanol, 2-methyl-, acetate

CAS number: 624-41-9

Chemical name: 2-Hexen-1-ol, (E)-

# Safety Data Sheet

## Apples & Bananas

CAS number: 928-95-0

Chemical name: Butanoic acid, 3-methylbutyl ester  
CAS number: 106-27-4

Chemical name: 3-Hexen-1-ol, (Z)-  
CAS number: 928-96-1

Chemical name: 3-Hexen-1-ol, acetate, (Z)-  
CAS number: 3681-71-8

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

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

### **EU Table of Harmonised Entries (Annex VI to CLP)**

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

Chemical name: Isoamyl Acetate  
CAS number: 123-92-2

Chemical name: 2-methylbutyl acetate  
CAS number: 624-41-9

### **US EPA TSCA public inventory**

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

Chemical name: Isoamyl Acetate  
CAS number: 123-92-2

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

Chemical name: Humulene  
CAS number: 6753-98-6

Chemical name: 2-methylbutyl acetate  
CAS number: 624-41-9

Chemical name: Trans-2 Hexenol  
CAS number: 928-95-0

Chemical name: Isoamyl Butyrate  
CAS number: 106-27-4

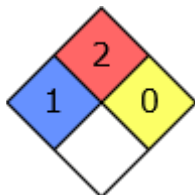
Chemical name: Cis-3 Hexenol  
CAS number: 928-96-1

Chemical name: Cis-3 Hexenyl Acetate  
CAS number: 3681-71-8

# Safety Data Sheet

## Apples & Bananas

### 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.