

HEALTH	1
FLAMMABILITY	2
REACTIVITY	0

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product identifiers

Product Name	<b>Terpinolene, Natural</b>
Product Number	<b>0304600</b>
CAS-No.	<b>586-62-9</b>

### 1.2 Product Recommended Use

**Flavorings**

### 1.3 Preparation Information

Company	Aurochemicals 7 Nicoll Street Washingtonville, NY 10992- USA
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Telephone	845-496-6065
Fax	845-496-6248

### 1.4 Emergency Telephone Number

1-800-535-5053  
International - 1-352-323-3500 collect

## Section 2: HAZARD(s) IDENTIFICATION

### 2.1 Classification of substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)	Flammable liquids (Category 4), H227 Acute Toxicity, Oral (Category 5) H303 Aspiration Hazard (Category 1) H304 Skin Irritant (Category 3) H316 Skin sensation (Category 1B) H317 Acute aquatic toxicity (Category 1), H400 Chronic aquatic toxicity (Category 1), H410
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### 2.2 GHS Label Elements, Including precautionary statements

Pictogram



Signal Statement  
Hazard Statement(s)

**DANGER**

H227	Combustible Liquid
H303	May be harmful if swallowed
H304	May be fatal if swallowed and enters airways
H316	Causes mild skin irritation
H317	May cause an allergic skin reaction
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
P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P264	Wash hands thoroughly after handling
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol resistant foam for extinction.
P391	Collect spillage
P403+P235	Store in a well ventilated place. Keep cool
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 HNOC (Hazards not otherwise classified or not covered by GHS) None

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1 Substances

Synonyms	4-isopropylidene-1-methylcyclohexend p-menth-1,4(8)-diene p-meth-1-en-8-yl-formate
Formula	C <sub>10</sub> H <sub>16</sub>
Molecular Weight	136.23 g/mol
CAS-No	586-62-9
EC-No.	209-578-0

#### Hazardous Components

Component	Classification	Concentration
p-menth-1,4(8)-diene	Flammable liquids (4), H227 Acute Toxicity, Oral (5) H303 Aspiration Hazard (1) H304 Skin Irritant (3) H316 Skin sensation (1B) H317 Acute aquatic toxicity (1), H400 Chronic aquatic toxicity (1), H410	-

### Section 4: FIRST AID MEASURES

#### 4.1 Description of first aid measures

General Advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Inhalation	Provide fresh air; keep at rest and at a comfortable position to breathe. Consult a physician
Contact with skin:	Remove contaminated clothing. Rinse skin with cool water then wash with mild soap and warm water. Consult a physician
Contact with eyes:	Rinse thoroughly with plenty of water for at least 15 minutes as a precaution.
Ingestion	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Clothing contamination:	Remove contaminated clothing and wash before reuse.

#### 4.2 Most important symptoms and effects both acute and delayed

See section 2.2 and or section 11

#### 4.3 Indication of any immediate medical attention and special treatment needed.

No data available

## Section 5: FIREFIGHTING MEASURES

- 5.1 Extinguishing Media**  
Suitable Extinguishing Media For small (incipient) fires, use media such as alcohol resistant foam, dry chemical or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray, solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.
- 5.2 Special hazards arising from the substance or mixture**  
Carbon Oxides
- 5.3 Advice for fire fighters**  
Wear self contained breathing apparatus for firefighting if necessary. Emits toxic fumes under fire conditions.
- 5.4 Further information**  
Use water spray to cool unopened containers.

## Section 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures**  
Use personal protective equipment. Avoid breathing vapors. Mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. **Vapors can accumulate in low areas.**
- 6.2 Environment precautions**  
Prevent further leakage or spillage if safe to do so. Do not allow to enter drains or sewage system. **Discharge into the environment must be avoided.**
- 6.3 Methods and materials for containment and clean up**  
Contain spillage. Wet Sweep up with broom and place in a suitable, closed container for disposal.
- 6.4 Specific end use(s)**  
Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

## Section 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling**  
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition-No smoking. Take measures to prevent the buildup of electrostatic charge.
- 7.2 Conditions for Safe storage**  
Keep container tightly closed in a dry, cool and well-ventilated place. Containers which have been opened must be carefully resealed and kept upright to prevent leakage.
- 7.3 Specific End use(s)**  
Flavorings

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters**  
Components with workplace control parameters- Contains no components with workplace control limits
- 8.2 Exposure Controls**  
Appropriate Engineering Controls Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of the workday.
- Personal protective equipment**  
**These recommendations are advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situations of anticipated use by our customers. They should not be construed as offering an approval or any specific use scenario.**
- Eye/face protection Safety glasses with side shields conforming to EN 166. Use equipment for eye protection tested and approved under appropriate government standards such as

NIOSH (US) or EN 166 (EU).

Skin protection	Wear chemically resistant Nitrile rubber gloves, 0.4mm. Use proper glove removal techniques (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands.
Body protection	Complete suit protecting against chemicals should be selected specifically for the work place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier
Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate, use a full face respirator with multi-purpose combination (U) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full faced supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (U) or CEN (EU).
Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a	Appearance	Clear, pale yellow liquid,
b	Odor	Pine
c	Odor Threshold	No data available
d	pH	No data available
e	Melting Point /Freezing Point	No data available
f	Boiling Point	184-185oC
g	Flash Point	64oC closed cup
h	Evaporation Rate	No data available
i	Flammability (Solid, Gas)	No data available
j	Upper/lower Flammability Limit	No data available
k	Vapor pressure	0.7 hPa at 20oC
l	Vapor density	5.46
m	Relative density @25oC	0.857-0.870
n	Solubility	Soluble in alcohol
o	Partition coefficient: n-octanol/water	No data available
p	Auto-ignition Temp.	No data available
q	Decomposition Temp,	No data available
r	Viscosity	No data available
s	Explosive properties	No data available
t	Oxidizing properties	No data available

9.2 Other Safety Information No data available

## Section 10: STABILITY AND REACTIVITY

10.1	Reactivity	No data available
10.2	Chemical Stability	Stable under recommended storage conditions
10.3	Possibility of Hazardous reactions	No data available
10.4	Conditions to avoid	Heat, Flames and Sparks

10.5	<b>Incompatible materials</b>	No data available
10.6	<b>Hazardous decomposition products</b>	No data available
10.7	<b>Further Information</b>	No data available

## Section 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Toxicity

LD50-Oral- Rat	4,390 mg/kg
LC50-Inhalation	No data available
LD50-Dermal-Rabbit	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ Cell mutagenicity	No data available

#### Carcinogenicity

IARC	No component of this product, present 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 a carcinogen or potential carcinogen by ACGIH.
NTP	No component of this product, present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No component of this product, present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity	No data available
Teratogenicity	No data available
Specific target organ toxicity-single exposure (GHS)	No data available
Specific target organ toxicity-repeated exposures (GHS)	No data available
Aspiration Hazards	No data available
Signs and Symptoms of Exposure	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated
Synergistic effects	No data available
RTECS:	WZ6870000

## Section 12: ECOLOGICAL INFORMATION

12.1	<b>Toxicity</b>	<u>To Fish:</u> LC-50- Pimephales promelas (fathead minnow) – 0.72 mg/l -96 hr
12.2	<b>Persistence and degradability</b>	Biodegradability: Biotic/Aerobic Result: 51% - Partially biodegradable
12.3	<b>Bioaccumulative potential</b>	No data available
12.4	<b>Mobility in soil</b>	No data available
12.5	<b>Results of PBT and vPvB assessment</b>	PBT/vPvB assessment not available as chemical safety assessment not required / not conducted
12.6	<b>Other adverse effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. <b>Very toxic to aquatic life. Avoid release to the environment.</b>

## Section 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods

Product:	According to local regulations
Packaging	According to local regulations

## Section 14: TRANSPORT INFORMATION

<b>DOT (US)</b>	UN Number: 2541	Class: 3	Packing Group III	
Proper Shipping Name	Terpinolene			
Reportable Quantity (RQ)	No			
Marine pollutant	No			
Poison Inhalation Hazard	No			
<b>IMDG</b>	UN Number: 2541	Class: 3	Packing Group III	EMS-No: F-E, S-D
Proper Shipping Name	TERPINOLENE			
Marine Pollutant	No			
<b>IATA</b>	UN Number: 2541	Class: 3	Packing Group III	
Proper Shipping Name	Terpinolene			

## Section 15: REGULATORY INFORMATION

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		
Massachusetts Right to Know components	No components are subject to the Massachusetts Right to Know Act		
Pennsylvania Right to Know components	p-mentha-1,4(8)-diene	CAS# 586-62-9	Rev. Date: 3/1/2007
New Jersey Right to Know components	p-mentha-1,4(8)-diene	CAS# 586-62-9	Rev. Date: 3/1/2007
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.		

## Section 16: OTHER INFORMATION

### HMIS Rating

Health hazard	1
Chronic Health Hazard	
Flammability	2
Reactive Hazard	0

### Further Information

Aurochemicals provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly

# Safety Data Sheet



trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Aurochemicals makes no representations or warranties, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Aurochemicals will not be responsible, nor held liable, for damages resulting from use of or reliance upon this information.

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