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Compliant with OSHA Hazard Communication  
Standard and UN Globally Harmonized  
System of Classification/Labeling of Chemicals (GHS) ,  
Compatible with EC Directive EU 1272/2008

Issue Date: 05/12/2015  
Version No. 1  
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## SAFETY DATA SHEET

### Orange Oil

#### 1 IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

Identification of the product: Sweet Orange Oil

Trade name: Raw Orange Oil P/N 273111, Winterized Orange Oil non-FCC, P/N 2151513

Type of product and use: Natural flavoring for the manufacture of beverages, fragrance ingredient

Company identification: Ventura Coastal LLC  
2325 Vista Del Mar Drive  
Ventura, CA 93002

International Emergency Phone number: (703) 527-3887 (Call Collect)

#### 2 HAZARDS IDENTIFICATION

**GHS Classification:**

- H226 – Flammable liquid and vapor, category 3
- H304 – May be fatal if swallowed and enters the airways, category 1
- H315 – Causes skin irritation, category 2
- H317 – May cause an allergic skin reaction category 1
- H319 – Causes serious eye irritation, category 2A
- H410 – Very toxic to aquatic life with long lasting effects category 1

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Emergency International Phone No: (703) 527-3887 (Call Collect)  
Ventura Coastal LLC  
2325 Vista Del Mar Drive  
Ventura, CA 93002 (USA)

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### GHS label elements



**Warning**  
H226 – Flammable liquid and vapor



**Danger**  
H304 – May be fatal if swallowed and enters the airways



**Warning**  
H410 – Very toxic to aquatic life with long lasting effects



**Warning**  
H315 – Causes skin irritation  
H317 – May cause an allergic skin reaction  
H319 – Causes serious eye irritation

### Prevention:

P210 – Keep away from heat, sparks, and open flames. No smoking  
P241 – Use explosion-proof electrical equipment  
P280 – Wear protective gloves/protective clothing/eye protection/face protection

### Response:

P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor  
P303+P361+P353 – IF ON SKIN OR HAIR: Remove all contaminated clothing. Use shower or  
rinse skin/hair with water  
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove  
contact lenses, if present and easy to do so. Continue rinsing.

### Storage:

P405 – Store locked up (in a cool place, away from direct sunlight)

### Disposal:

P501 – Dispose of contents/container in accordance with local, regional, national, and  
international regulations

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### 3 COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Preparation:** Substance

<u>Ingredient Name</u>	<u>WT%</u>	<u>CAS No.</u>	<u>EINECS No.</u>
Orange Oil, Sweet	100%	8008-57-9 (EC 8028-48-6)	232-433-8

**Chemical Characterization:**

Essential oil content 100%, with >92% % d-limonene

### 4 FIRST AID MEASURES

After inhalation	If overcome by exposure, remove victim to fresh air immediately. Seek medical attention.
After skin contact	Wash skin thoroughly with mild soap/water. Seek medical attention if ill effect or irritation develops
After eye contact	Remove any contact lenses at once. Flush eyes well with large quantities of water for at least 15 minutes. Seek medical attention.
After swallowing	Do not induce vomiting; immediately call for medical help.

### 5 FIREFIGHTING MEASURES

Extinguishing media	Water, carbon dioxide, dry chemical or foam
Special exposure hazards	When heated to dryness and decomposition under fire conditions, this product may release carbon monoxide, carbon dioxide, and other decomposition products of undetermined hazard.
Protect against fire	As with any fire situation, full face, self-contained breathing apparatus and appropriate protective clothing should be worn.

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### 6 ACCIDENTAL RELEASE MEASURES

After spillage / leakage	<p>NO SMOKING. Eliminate other ignition sources. Leaking containers should be moved to a dry well-ventilated area. Isolate spill area. Provide clean-up workers with protective clothing and, when necessary, chemical resistant gloves equivalent to Neoprene/PVC. Keep unnecessary and unprotected personnel from entering.</p> <p>Absorb spillage on sand or vermiculite and place in closed container. Safety glasses with side guards should be worn to prevent injury from flying particles and/or other eye contact with this product.</p>
Waste Handling, Disposal	<p>Dispose of absorbed spillage according to local regulations. Store contaminated absorbent material in a cool place out of the direct sunlight and away from ignitions sources as it is flammable.</p>
Environmental Precautions	<p>Water polluting material. Maybe harmful to the environment if released in large quantities. Prevent entry into sewers, and water courses. Inform appropriate authorities if entry of spillage into sewers/water courses cannot be prevented.</p>

### 7 HANDLING AND STORAGE

Handling	<p>Avoid eye and skin contact. Protect against physical damage to containers. As with all semi-finished materials, prudent industrial practices should be employed to minimize contact with eyes, skin and mucous membranes. Do not use compressed air to transfer contents of container.</p>
Storage	<p>Store in closed containers away from heat, caustics and oxidizing materials or any sources of ignition. Store in original container protected from direct sunlight, in a cool area. Keep container tightly closed and sealed until ready for use Avoid release to the environment. Emptied containers retain product residue and should be considered hazardous.</p>

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### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with Limit Values: 

Component	CAS No.	Value	Control Parameter	Basis
d-limonene	5989-27-5	TWA	20 ppm	USA,ACGIH*

\*Threshold Limit Value

Personal protection

Respiratory protection: Approved respiratory protection recommended in confined areas

Skin Protection: Use skin protection appropriate to the conditions of use.

Hand Protection: Wear suitable gloves resistant to chemical penetration.

Eye Protection: Safety glasses with side guards should be worn to prevent injury from flying droplets and/or other eye contact with this product.

Respiratory Protection: Use suitable respiratory protective device when aerosol or mist is formed.

Other

Adequate ventilation is recommended. Keep away from heat & open flame.

### 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state: Clear or slightly cloudy liquid

Color: Orange

Odor: Citrus

Physical Data

Initial boiling point: 171° C/760 mm

Apparent Density at 20° C (kg/L): 0.9

Vapor pressure at 55° C \*kPa): < 50

Solubility: Insoluble water, mostly soluble alcohol

pH value: not applicable

Flash point: 50° C, Closed Cup

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### 10 STABILITY AND REACTIVITY

Chemical Stability	Stable
Hazardous Polymerization	Will not occur.
Conditions to Avoid	Avoid release to the environment. Refer to special instructions
Incompatibility	Strong alkalis, acids and strong oxidizing agents
Hazardous combustion or decomposition products	Carbon monoxide, carbon dioxide

### 11 TOXICOLOGICAL INFORMATION

#### Potential Acute Health Effects

Skin contact	May cause skin irritation. Can cause skin photosensitization. May be harmful if absorbed through the skin.
Eye contact	Causes serious eye irritation.
Inhalation	May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion	May be harmful if swallowed. Irritating to mouth, throat and stomach

#### Acute Toxicity

RTECS #	R18600000 (Oil of Orange)
Irritation Data	Skin Rabbit 500 mg/24H Moderate FCTXAV 12,733,1974
Mutation Data	Msc Mouse 120000 ug/L/48H mg/Kg HPV304 --,--,2002
Reproductive Effects	Oral Rat 12375 mg/Kg HPV304 --,--,2002
Tumorigenic Effects Data	Oral Mouse 67 mg/kg/40W-I FCTXAV 35,771,1965

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Toxicity Data                      \* Oral Rat LD50 >5000 mg/kg    HPV304 --,--,2002  
   \* Skin Rabbit LD50 >5000 mg/kg HPV304 --,--,2002

### Over-exposure signs/symptoms

Skin	Adverse symptoms: irritation, redness
Eye	No specific information or data
Inhalation	No specific information or data
Ingestion	No specific information or data

## 12 ECOLOGICAL INFORMATION

Environmental Effects	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Biodegradability	Naturally occurring d-limonene is the principal component of orange oil and is biodegradable; 100% 21 days.
Mobility	Accidental spillage may lead to penetration in the soil and groundwater. However, there is no evidence that this would cause adverse ecological effects.
Other Environmental Effects	No specific information or data

## 13 DISPOSAL CONSIDERATIONS

Disposal	This product should be handled in accordance with instructions given under Sections 6, 7 and 8. Dispose of in accordance with National and Local laws. Disposal of surplus product via a licensed waste disposal contractor only
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### 14 TRANSPORTATION INFORMATION

General	Handle in accordance with instructions given in Sections 5, 6, 7 and 8.
Domestic Shipments	UN number: UN 1197; extract, flavoring, liquid. Hazard class 3 Packaging group III At the discretion of the shipper this product may, for shipments by ground only, be reclassified as UN 1993 (NA 1993); combustible liquid N.O.S., packaging group III. Reference CFR 49 secs.173.120 (b)(2) and 173.150 (f)—current as of 10/27/2014.
International Transport	UN number: UN 1197; extract, flavoring, liquid. Packaging group III. Hazard class 3 (air), 3.3 (vessel).
Marine pollutant:	Yes. (contains d-limonene, see also sections 3 and 12)

### 15 REGULATORY INFORMATION

Inventory Status	Listed on TSCA (orange oil, sweet), EINECS/ELINCS (orange, ext.). Classified in Accordance with EC Commission Directive 67/548/EEC on substances.
Global Inventories	This product is also included in the following inventories:  Canada (DSL) <sup>1,2</sup> . Australia (KECL) <sup>1,2</sup> . Phillipines (PICCS) Japan (ENCS) <sup>1</sup> . China (IECSC) <sup>1,2</sup> .

1. Listed as CAS 5989-27-5 (d-limonene)
2. Listed as EC 232-433-8 (Orange, Sweet, Ext.)

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U.S. Regulations	<p>OSHA—considered hazardous by definition of Hazard Communication Standard (29CFR 1910:1200)</p> <p>FEMA number 2825</p> <p>US FDA: generally recognized as safe</p> <p>U.S. Superfund Amendments and Reauthorization Act (SARA) Title III: This product is not listed in SARA 313 Toxic Release Chemicals.</p>
German Regulations	<p>Regulations governing combustible liquids (German-VbF) class: AI</p> <p>German water endangering class (WGK) = 1, slightly water-endangering product (manufacturer classification.)</p>
EU Risk(R),Safety(S)	<p>R 10 - Flammable.</p> <p>R 36/38 - Irritating to skin and eyes.</p> <p>R 43 - May cause sensitization by skin contact.</p> <p>R 50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p>R 65 - Harmful: may cause lung damage if swallowed.</p> <p>S 02 - Keep out of the reach of children.</p> <p>S 24/25 - Avoid contact with skin and eyes.</p> <p>S 26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</p> <p>S 61 - Avoid release to the environment. Refer to special instructions/safety data sheet.</p> <p>S 62 - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label</p> <p>S07 – Keep container tightly closed.</p> <p>S16 – Keep away from sources of ignition – No Smoking.</p> <p>S36 – Wear suitable protective clothing</p> <p>S 37/39 - Wear suitable gloves and eye/face protection.</p> <p>.</p>

## **SAFETY DATA SHEET**

### **Orange Oil**

#### **16 OTHER INFORMATION**

The contents of this MSDS are written by the manufacturer, Ventura Coastal LLC, in accordance with the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and with reference to the requirements of EC Commission Directive EU 1272/ 2008

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