
SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME (IDENTITY): LEMON OIL

CAS# 8008-56-8

FEMA Numbers: 2625

Synonyms: Pure Lemon Oil, Oil of Lemon

Pure Substance/mixture: Natural Complex Substance

Contact Information:

OliveNation LLC

13 Robbie Road, Suite A4, Avon, MA 02322

617-580-3667

CHEMTREC PHONE: 1-800-424-9300 for US/ 703-527-3887 outside US

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use: No information available

SECTION 2: HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Aspiration toxicity: Category 1

Acute oral toxicity: Category 5

Acute Dermal Toxicity: Category 5

Skin Corrosion/irritation: Category 2

Serious Eye Damage/eye irritation: 2

Skin sensitization: Category 1

Acute aquatic toxicity: Category 1

Chronic aquatic toxicity: Category 1

Flammable Liquids: Category 3

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases mentioned in this section see Section 16

Symbol(s)

Xi-Irritant

N- Dangerous for the environment

R-code(s)

R10-Xi,R38-R43-N; R50-53

2.2 Label elements



Signal Word

Danger

H226-Flammable liquid and vapor

Precautionary Statements

P280-Wear protective gloves/ face protection

P321- Specific treatment (see ? On this label)

P301 + P310- IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician

P331- Do NOT induce vomiting

P370 + P378 – In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

P280-Wear protective gloves/ eye protection/ face protection

SECTION 3: Composition and Information on Ingredients

Chemical Name	EC-No	CAS-No	Alternative CAS#	Weight %	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Limonene	227-813-5	5989-27-5		1-5%	R10, XI, R38, XI; R43, N; R50/53;	Aquatic Acute 1 (H400) Skin Sensitivity 1 (H317) Skin Irrit. 2 (H316) Asp. Tox. 1 (H304) Aquatic chronic 1 (H410) Flam. Liq. 3 (H226)	No data available
PINENES	201-291-9	80-56-8		10-15%	R10, XI, R43, N; R50/53, XN; R65	Aquatic Acute 1 (H400) Skin Sens. 1 (H317) Skin Irrit. 3 (H316) Asp. Tox. 1 (H304) Aquatic Chronic 1 (H410) Acute Tox. 5 (H303) Flam. Liq. 3 (H226)	No Data available
GAMMA-TERPINENE	202-794-6	99-85-4		5-10%	R10, XN; R65	Skin Irrit. 3 (H316) Asp. Tox. 1 (H304) Acute Tox. 5 (H303) Flam. Liq. 3 (H226)	No Data Available
CITRAL	226-394-6	5392-40-5		1-5%	XI, R38, XI; R43	Aquatic Acute 2 (H401) Skin Sens. 1 (H317) Skin Irrit. 2 (H316) Acute Tox. 5 (H303) Acute Tox 5 (H313) Flam. Liq. 4 (H227)	No Data Available

SECTION 4: First Aid Measures

General Advice: Immediate medical attention is required. Show this material safety data sheet to the doctor in attendance. If symptoms persist, call a physician.

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If symptoms persist, call a physician immediately.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Remove and wash contaminated clothing before reuse. Wash off immediately with soap and plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing contaminated clothes and shoes.

Ingestion: Do NOT induce vomiting. Drink plenty of water. Immediate medical attention is not required. Rinse mouth, Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.

Inhalation: Remove to a fresh air. If symptoms persist, call a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. Move to fresh air in case of accidental inhalation of vapors or decomposition products.

Self-Protection of the first aider Remove all sources of ignition Use personal protective equipment

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically may cause sensitization in susceptible persons. Treat symptomatically

SECTION 5: Fire-Fighting Measure

5.1. Extinguishing media

Suitable Extinguishing media: Use dry chemical CO2, water spray, alcohol resistant foam.

Extinguishing media which shall not be used for safety reasons: No information available.

5.2. Special hazards arising from the substance or mixture

Special hazard: None

5.3. Advice for fire fighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid contact with eyes and skin. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flash back. Take precautionary measures against static discharges.

See section 12 for Ecological Information

6.2. Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in area provided with appropriate exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray mist. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat, sparks and open flame. No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

7.2. Conditions for safe storage, including any incompatibilities

Keep tightly out of the reach of children. Keep container tightly closed. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

7.3. Specific end users

Exposure scenario N/A

Other guidelines: N/A

SECTION 8: Exposure Controls/ Personal Protection

8.1. Control parameters

Exposure limits: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No Information available

8.2. Exposure controls

Engineering Controls: Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Eye Protection: Tightly fitting safety goggles

Hand Protection: Protective gloves

Skin and body protection: Antistatic boots Wear fire/ flame resistant. Retardant clothing Impervious gloves Long sleeved clothing Apron Impervious gloves

Respiratory protection: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations: When using, do not eat, drink or smoke. Wash contaminated clothing before reuse. Provide regular cleaning of equipment, work area and clothing.

Environmental Exposure controls: Do not allow material to contaminate ground water system.

SECTION 9: Physical and Chemical Properties

Physical State	Liquid
Appearance:	Liquid
Color:	Dark yellow to green
Aroma:	Lemon
Property	
pH:	No information available
Boiling Point/Range	FCC method
Melting Point	No information applicable
Flash point	54 deg. C / 130 deg F closed cup
Evaporation rate:	FCC method
Vapor Pressure	No information available
Relative density	No information available
Specific Gravity @25C	0.8710 – 0.8790 FCC method
Specific Gravity @20C	0.874 – 0.882 FCC method
Refractive Index	1.4760– 1.4450 FCC method
Water solubility	No information available
Auto ignition temperature	No information available
Decomposition temperature	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing Properties	No information available

9.2 Other Information

VOC Content (%) 83
Molecular Weight No Information available

SECTION 10 Stability and Reactivity

- 10.1. Reactivity
- 10.2 Chemical stability: Stable under normal conditions
- 10.3 Possibility of hazardous reactions
- 10.4 Conditions to avoid: Heat, flames, sparks
- 10.5 Incompatible materials: No materials to be especially mentioned
- 10.6. Hazardous decomposition products: None under normal use conditions

11. Toxicology Information

11.1. Information on toxicological effects

Acute toxicity

Product information: Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation: There is no data available for this product.

Eye contact: There is no data available for this product.

Skin contact: There is no data available for this product

Ingestion: There is no data available for this product.

Acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS documents (rev. 1,2005)

Oral: 1,581.17 mg/kg
Dermal: 4,348 mg/kg
 Gas: 99,999.00
 Mist: 99,999.00
 Vapor: 99,999.00

Chemical name	Oral LD50	Dermal LD50	LC50 Inhalation
Limonene	4400 m/kg (rat)	2000mg/kg (rabbit)	
Pinenes	2100 mg/kg (rat)	5000 mg/kg (Rat)	
Gamma-Terpinene	3650 mg/kg (rat)		
Citral	4950 mg/kg (rat)	2250 mg/kg (Rabbit) 2000 mg.kg (rat)	

Skin corrosion/irritation: No information available

Eye damage/irritation: No information available

Sensitization: No information available

Germ cell Mutagenicity: No information available

Carcinogenicity: No information available

SECTION 12: Ecological Information

Ecotoxicity: Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

Limonene: Toxicity to fish: 0.619-0.796:96 h Pimephales promelas mg/L LC50 flow through 35: 96 h Oncorhynchus mykiss mg/L LC50

Pinenes: Toxicity to fish: 0.28:96 h Leuciscus idus mg/L LC50 static; Toxicity to Daphnia and othe aquatic invertebrates:41: 48h Daphnia magna mg/L LC50

CITRAL: Toxicity to algae: 16:72 h Desmodesmus subspicatus mg/L EC50 19:96 h Desmodesmus subspicicatus mg/L EC50; Toxicity to fish: 4, 6-10:96 h Leuciscus idus mg/L LC50 static; Toxicity to daphnia and other aquatic invertebrates: 7: 48 H Daphnia magna mg/L EC50

Bioaccumulative potential: No information available

Mobility in soil: No information available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products: Dispose of in accordance with local regulations.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for re-cycling or disposal.

Other Information: According to the European Waste Catalogue, Waste Codes are not product specific, but application specific Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14 Transport Information

DOT Classification: Not regulated

IMDG/IMO:

Proper shipping name: Flammable liquid, N.O.S. (Limonene)

Hazard class: 3

UN/ID no: 1993

Packing group: III

Marine pollutant: This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

ICAO/IATA:

UN/ID: 1993

Proper shipping name: Flammable Liquid N.O.S. (Limonene)

Hazard class: 3

Packing group: III

ERG Code: 128

Section 15 Regulatory Information

15.1. Safety, Health and environmental regulations/legislation specific for the substance or mixture

WGK Classification

Chemical Name: Citral (5392-40-5 Hazard class 1

International Inventories

All of the components in the product are on the following Inventory lists: No information available, Canada, Europe, United States, Korea, Australia, China, Japan, Phillipines.

TSCA:- Complies

EINECS/ELINCS: Complies

DSL/NDSL: - Complies

PICCS: -Complies

ENCS:-Complies

IECSC:-complies

AICS: - complies

KECL:-complies

15.2 Chemical Safety Assessment

Section 16 Other Information

Risk Combination phrases

R50/53-Very Toxic to aquatic organisms. May cause long term adverse effects in aquatic environment.

Full text of H-statements referred to under sections 2 and 3

H401-Toxic to aquatic life H411- H317 May cause an allergic skin reaction H316-Causes mild skin irritation H303-May be harmful if swallowed H313 May be harmful in contact with skin H400 Very toxic to aquatic life H304 May be fatal if swallowed and enters airways H226-Flammable liquid and vapor H410: Very toxic to aquatic life with long lasting effects H227-Combustible liquid H319-Causes serious eye irritation

Warning/Disclaimer: The ingredient(s) has not been tested, nor has it been deemed safe, for inhalation or use in electronic smoking devices, electronic nicotine delivery systems, electronic cigarettes or other similar devices (collectively "E-cigarettes").

In supplying this ingredient, OliveNation LLC instructs and by receiving this ingredient recipient confirms, that this ingredient will not be used in connection with the manufacture and distribution of E-cigarettes or any component thereof.

The information in this SDS is believed to be accurate and represents the best information currently available to us. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. We make no warranty of merchantability or any other warranty expressed or implied, with respect to such information, we assume no liability resulting from its use. Users should make their own investigation to determine suitability of the information for their particular purposes. In no event shall OliveNation LLC be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages, howsoever arising, even if OliveNation LLC has been advised of the possibility of such damages.