

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Lemon Oil, Italian Type, Coldpressed, FCC
 Product Number : L1201
 Brand : Spectrum Chemical

CAS-No. : 8008-56-8

1.2 Details of the supplier of the safety data sheet

Company : Spectrum Chemical
 14422 South San Pedro St.
 Gardena, CA 90248
 Telephone : +1 310-516-8000
 Fax : +1 310-516-9843

1.3 Emergency telephone number

Emergency Phone # : +1-800-424-9300 (CHEMTREC)

2. HAZARD IDENTIFICATION

2.1 Classification of the substance / preparation

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS classification]

HAZARD CATEGORY

Flammable Liquid 3
 Aspiration Hazard 1
 Skin Corrosion/Irritation 2
 Skin Sensitization 1
 Aquatic acute 1
 Aquatic Chronic 1

HAZARD STATEMENTS

H226 FLAMMABLE LIQUID AND VAPOUR
 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

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

R10	FLAMMABLE
R38	IRRITATING TO SKIN
R43	MAY CAUSE SENSITIZATION BY SKIN CONTACT
R65	HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED
R50/53	VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

2.2 Label Elements

Label elements according to Regulation (EC) No. 1272/2008 (Substance)/Directive 67/548/EEC

Hazard Pictogram / Symbol:



GHS 07



GHS 02



GHS 08



GHS 09

Signal word / Indication(s) of danger:

Danger

Hazard Pictogram / Symbol:



N Dangerous for the environment



Xn Harmful

Hazard Statements

H226 FLAMMABLE LIQUID AND VAPOUR
 H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS
 H315 CAUSE SKIN IRRITATION
 H317 MAY CAUSE AN ALLERGIC SKIN REACTION
 H410 VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS

Precautionary Statements

P210 KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. – NO SMOKING

P233 KEEP CONTAINER TIGHTLY CLOSED

P241	USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/LIGHTING/.../EQUIPMENT
P261	AVOID BREATHING DUST/FUME/GAS/MIST/VAPOURS/SPRAY
P273	AVOID RELEASE TO THE ENVIRONMENT
P280	WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE PROTECTION
P301+310	IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN
P303+361+353	IF ON SKIN (OR HAIR): REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER
P331	DO NOT INDUCE VOMITTING
P333+313	IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ATTENTION
P405	STORE LOCKED UP
P501	DISPOSE OFF CONTAINERS TO..... (IN ACCORDANCE WITH LOCAL/REGIONAL/NATIONAL/INTERNATIONAL REGULATION)

3. COMPOSITION / INFORMATION OF INGREDIENTS

Substance Name	:	LEMON OIL ITALIAN
Product Description	:	This product is a 100% natural flavour ingredient.
Hazardous components	:	D-LIMONENE (CAS No 5989-27-5) Xi, N, R10, R38, R43, R50/53 BETA-PINENE (CAS No 127-91-3); Xn, Xi; R43, R50/53, R65 GAMMA-TERPINENE (CAS No 99-85-4); Xn, R10, R65

CAS No.	:	8008-56-8
EC No.	:	284-515-8
Botanical Name	:	<i>Citrus limon (L.) Burm. f. (Rutaceae)</i>
Stabilizers	:	N/A
Hazard Impurities	:	N/A
Synonyms	:	Citrus limon (L.) Burm. F.
Index No.	:	N/A
CLP Reference No.	:	02-2119699168-20-0000
REACH Pre-Registration No.	:	----

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

Eye Contact	:	Remove contact lenses if worn. Flush immediately with plenty of water.
Skin Contact	:	Remove contaminated clothing. Wash affected area with mild soap and water.
Inhalation	:	Remove affected person to fresh air. If discomfort persists, consult physician.
Swallowing	:	Seek immediate medical care.

4.2 Indication of any immediate medical attention and special treatment method

IF SWALLOWED: Immediately call a POISON CENTER or Doctor/Physician.

IF ON SKIN (or hair): Remove /take off immediately all contaminated clothing. Rinse skin with water /shower.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

- Suitable	:	Carbon Dioxide; Dry Chemical; Universal Type Foam.
- Unsuitable	:	Water spray; others not established.

5.2 Special hazards arising from substance

Combustible liquid Possibility of development of hazardous gases or vapors in event of fire Following may develop: CO and CO2

5.3 Advice for fire fighters

Do not stay in dangerous zone without self protective clothing and breathing apparatus Spray extinguishing media directly into base of fire Cool containers exposed to flame with water Prevent fire fighting water entering surface water or ground water.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, protective equipment and emergency procedures

Wear personal protective clothing. Keep away unprotected individuals. Eliminate source of ignition. Keep area well ventilated and isolate the spill.

6.2 Environmental precautions

Prevent entry into drains, ground/surface water or sewerage system.

6.3 Methods and material for containment and cleaning up

Pick up with absorbents material (Sand) or with pump for large spills.

6.4 Reference to other sections

Refer to Section 7, 8 & 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Measures to prevent fire

Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Use explosion proof electrical/ ventilating/lighting/equipment etc.

Measures to prevent aerosols and dust generation

Ensure good ventilation at workplaces

Measures to protect the environment

Prevent entry into drains, ground/surface water or sewerage system.

General Occupational hygiene

Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe use, including any incompatibilities

Information on storage conditions

Should be stored in cool, dark, dry, well ventilated places in full, tightly sealed containers protected from light & source of ignition

Information on packing materials

Should be packed in Aluminium, HDPE Food Grade Cans, MS Coated Drums, and GI Drums, Avoid long contact with Iron

Requirements for storage rooms and vessels

Should be stored in suitable containers (lines inside) e.g. MS Coated Drums, GI Drums etc. No special requirement for storage rooms.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure controls

8.1 Appropriate engineering controls

Engineering controls should be used as the primary means to control exposures

8.2 Personal protective equipments

Skin protection



Safety gloves

Eye protection



tight safety goggles

Body protection



Protective clothing

Respiratory protection



Dust mask

8.3 Environmental exposure controls

Prevent entry into drains, ground/surface water or sewerage system.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

-Physical state

Liquid

-Color

Pale Yellow to Deep Yellow

Odor

Characteristic

Odor Threshold

Medium

pH

N/A

Melting Point °C

N/A

Boiling Point °C

N/A

Flash Point (Closed Cup) °C

50 °C

Vapor Pressure

N/A

Vapor Density

N/A

Specific Gravity /Relative Density

0.845 - 0.860 @ 20 °C

Refractive Index

1.468 - 1.480 @ 20 °C

Optical Rotation

+57° - +65.6°

Surface tension

N/A

Solubility

-Water

Insoluble

-Alcohol

1:3 in 95% alcohol

Viscosity

N/A

Partition Coefficient

N/A

Explosive Limits	Not Determined
-Lower Explosion Limit	Not Determined
-Upper Explosion Limit	N/A
Auto ignition Temperature	Flammable
Flammability	N/A
Granulometry	N/A
Oxidizing Properties	N/A

10. STABILITY AND REACTIVITY

- 10.1 Reactivity**
Not reactive, stable at room temperature.
- 10.2 Chemical stability**
Stable
- 10.3 Possibility of hazardous reactions**
Reactions with strong oxidizers
- 10.4 Conditions to avoid**
No decomposition if stored and handled properly
- 10.5 Incompatible materials**
Avoid strong acids strong bases and all oxidising agents
- 10.6 Hazardous decomposition products**
No dangerous decomposition products expected by intended us

11. TOXICOLOGICAL INFORMATION

- 11.1 Acute toxicity oral (LD50)** > 5 gm/kg bw (Rat)
- 11.2 Acute toxicity inhalation** Not Determined
- 11.3 Acute toxicity dermal (LD50)** > 10 gm/kg bw (Rabbit)
- 11.4 Skin Irritation/Corrosion** Irritating
- 11.5 Respiratory sensitization** N/A
- 11.6 Skin sensitization** Sensitizing
- 11.7 CMR Effects**
 - Carcinogenicity** No
 - Mutagenicity** No
 - Toxic to reproduction** No
- 11.8 Eye Irritation / Corrosion** Not irritating
- 11.9 Exposure limits** There is a blanket recommendation of 10 mg/m3 for inspirable dusts or mists when limits have not otherwise been established.

12. ECOLOGICAL INFORMATION

- 12.1 Toxicity**
 - PNEC Aqua (fresh water)** : Not estimated
 - PNEC Aqua (marine water)** : Not estimated
 - PNEC Aqua (intermittent release)** : Not estimated
 - PNEC Sediment (fresh water)** : Not estimated
 - PNEC Sediment (marine water)** : Not estimated
 - PNEC Soil** : Not estimated
 - PNEC Oral** : Not estimated
 - NOAEL** : N/A
 - EC50 (48hrs)** : Not estimated
 - LC50 (96hrs)** : Not estimated
- 12.2 Persistence and degradability** : Readily biodegradable in water
- 12.3 Mobility in Soil** : Low mobility
- 12.4 Results of PBT and vPvB assessment**
N/A

13. DISPOSAL CONSIDERATION

- 13.1 Waste treatment methods**
- Product/packaging disposal**
Handle in accordance with official provisions

Waste treatment options

Recycling is preferred to disposal or burning

Waste code /Waste designations according to EWC/AVV

15 02 02* absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

13.2 Recommendations

Empty contaminated packing thoroughly as they may be recycled

Moistened solids to be disposed of adhering to necessary technical regulations after consulting concerned authorities

14. TRANSPORT INFORMATION**14.1 Land Transport (ADR/RID/GGVSE)**

UN Number 1197
DG Class 3
Packing Group III
Proper Shipping Name Extracts, Flavoring, Liquid
Classification Code 3Y
Hazard Labels

**14.2 Sea Transport (IMDG-Code/GGVSee)**

UN Number 1197
DG Class 3
Packing Group III
Proper Shipping Name Extracts, Flavoring, Liquid
Marine Pollutant Yes
Hazard Labels

**14.3 Air Transport (ICAO-IAT/DGR)**

UN Number 1197
DG Class 3
Packing Group III
Proper Shipping Name Extracts, Flavoring, Liquid
Hazard Labels

**14.4 Special precautions for users**

Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing and wash before reuse Prevent entry into drains, ground/surface water or sewerage system.

14.5 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

N/A

14.6 Other Information

Custom Tariff Code : 3301 90 30
EmS Code : -

15. REGULATORY INFORMATION**EU regulations:**

The product has been classified and labelled according to criteria provided in Directive 67/548/EEC and 1272/2008/EC, and following the recommendations of EFFA (European Flavor and Fragrance Association).

Other Regulations: German Regulation (VwVws)

Water Hazard Class : WGK 3

16. OTHER INFORMATION**16.1 Changes to previous version**

Changes applicable according to regulation (EC) No 1907/2006 (REACH)

16.2 Abbreviations and acronyms

GHS : Globally Harmonized System of Classification and Labeling of Chemicals
CAS : Chemical abstract Service (division of American Chemical society)
CLP : Classification, Labelling and Packaging
LD50 : Lethal concentration, 50 percent
EC50 : Effective concentration, 50 percent
PNEC : Predicted No Effect Concentration

NOAEL	:	No Observed Adverse Effect Levels
ADR	:	European Agreement concerning the International Carriage of Dangerous Goods by Road
RID	:	Regulations Concerning the International Transport of Dangerous Goods by Rail
IMDG	:	International Maritime Code for Dangerous Goods
IATA	:	International Air Transport Association
IATA-DGR	:	Dangerous Goods Regulations by the International Air Transport Association (IATA)
ICAO	:	International Civil Aviation Organization

16.4 Wording of relevant hazard statement and/or precautionary statements referred to in section 2 to 15

Hazard Codes

N	DANGEROUS FOR THE ENVIRONMENT
Xn	HARMFUL

Risk Phrases

R10	FLAMMABLE
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Safety Phrases

S24	AVOID CONTACT WITH SKIN
S37	WEAR SUITABLE GLOVES
S61	AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEET
S62	IF SWALLOWED, DO NOT INDUCE VOMITTING: SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.

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Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet