Lemon Oil Extract (Citrus limon) – d-Limonene 90–98%

Citrus limon · Rutaceae

DOCUMENT	PRODUCT CODE	DOCUMENT NO.	REVISION
Safety Data Sheet	AP0313	SDS-AP0313	1.0 · 24 October 2026

FORMAT
UN GHS Rev. 10 · US OSHA HCS (2024) · EU REACH Annex II

1 Identification of the substance/mixture and of the company

Product identifier	Lemon Oil Extract (Citrus limon) – d-Limonene 90–98%
Product code	AP0313
Other names	Lemon
Recommended use	Raw material for the manufacture of nutraceuticals & supplements products. Industrial and professional use only.
Uses advised against	Not for direct use by consumers as supplied. Not for medicinal use unless the user holds the required authorisation.
Supplier	CHOLAD PRIVATE LIMITED (trading as Extrakte) C 22/4, 2nd & 3rd Floor, Sector-57, Noida-201301, Uttar Pradesh, India
Telephone / e-mail	+91 817 8117 600 · choladco@gmail.com · extrakte.com
Emergency telephone	24-hour emergency (CHOLAD PRIVATE LIMITED): +91 81781 17600. Medical advice: National Poisons Information Centre, AIIMS New Delhi (24 h): 1800 116 117 (toll-free in India) / +91 11 2658 9391; outside India, your national poison centre.

2 Hazard identification

2.1 Classification (UN GHS / EU CLP Regulation (EC) No 1272/2008 / US OSHA HCS 29 CFR 1910.1200, as amended 2024)

H226	Flammable liquids, Category 3 — Flammable liquid and vapour.
H304	Aspiration hazard, Category 1 — May be fatal if swallowed and enters airways.
H315	Skin irritation, Category 2 — Causes skin irritation.
H317	Skin sensitisation, Category 1 — May cause an allergic skin reaction.
H400	Hazardous to the aquatic environment – acute, Category 1 — Very toxic to aquatic life.
H410	Hazardous to the aquatic environment – chronic, Category 1 — Very toxic to aquatic life with long lasting effects.

2.2 Label elements

GHS02 GHS07 GHS08 GHS09

Signal word
DANGER

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.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352	IF ON SKIN: Wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P331	Do NOT induce vomiting.
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.
P370+P378	In case of fire: Use water spray, foam, dry chemical or CO2 to extinguish.
P391	Collect spillage.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local, regional, national and international regulations.

2.3 Other hazards

- Contains volatile and/or oxidisable constituents. Vapours or mists may cause irritation in poorly ventilated areas.
- PBT / vPvB assessment: not carried out (botanical substance of unknown or variable composition).

Basis of classification. Calculated for the product at its highest grade using the GHS mixture rules (additivity formula and generic concentration limits), from the classification of: d-Limonene (PubChem CID 440917; up to 98%): H226, H304, H315, H317, H400, H410, H412 — ECHA C&L Inventory aggregated notifications (codes reported by ≥50% of notifiers); EU CLP Annex VI harmonised classification; NITE-CMC (carcinogenicity, mutagenicity and sensitisation endpoints).

3 Composition / information on ingredients

Botanical essential oil fraction of *Citrus limon* (a substance of unknown or variable composition, UVCB), standardised as stated on the label (Typical 90–98%). For classification it is treated as a mixture of its constituents.

COMPONENT	CAS	CONCENTRATION	CLASSIFICATION (PURE COMPONENT)

Extract of *Citrus limon* (fruit)	—	to 100%	Not classified as a whole
d-Limonene	5989-27-5	≤ 98%	H226, H304, H315, H317, H400, H410, H412

Concentrations refer to the highest grade offered. Full text of H-statements in section 16.

4 First-aid measures

Inhalation	Move to fresh air and keep at rest. Call a POISON CENTRE or doctor immediately and show this SDS.
Skin contact	Remove contaminated clothing immediately. Wash with plenty of soap and water. Get medical advice if irritation or rash develops.
Eye contact	Rinse cautiously with water for at least 15 minutes, holding eyelids open; remove contact lenses if easy to do. Get immediate medical attention.
Ingestion	Rinse mouth with water. Do NOT induce vomiting (aspiration risk). Call a POISON CENTRE or doctor immediately and show this SDS.
Most important symptoms	Irritation of skin, eyes and respiratory tract; allergic skin reactions.
Immediate medical attention	Required — treat symptomatically and contact a poison centre.

5 Fire-fighting measures

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical powder, carbon dioxide.
Unsuitable extinguishing media	High-volume water jet (may spread burning liquid).
Specific hazards	Flammable liquid and vapour; vapours may travel to an ignition source. Hazardous combustion products: carbon monoxide, carbon dioxide.
Advice for firefighters	Wear self-contained breathing apparatus and full protective clothing. Cool containers exposed to fire with water spray.

6 Accidental release measures

Personal precautions	Use the personal protective equipment in section 8. Remove ignition sources. Ensure adequate ventilation.
Environmental precautions	Prevent entry into drains, surface water and soil — the product is hazardous to the aquatic environment.
Methods for clean-up	Absorb with inert material (sand, diatomaceous earth, universal binder). Place in labelled, closed containers for disposal (section 13). Wash the area with water.

7 Handling and storage

Precautions for safe handling

- Avoid contact with skin and eyes and inhalation of vapours or mists.
- Use with local exhaust ventilation at points where dust or vapour may be generated.
- Do not eat, drink or smoke in work areas; wash hands after handling.
- Keep away from heat, sparks and open flames; use non-sparking tools and explosion-protected equipment.

Conditions for safe storage

- Store tightly closed below 25 °C, protected from light and heat.
- After opening, blanket with nitrogen and use promptly to limit oxidation.
- Keep away from strong oxidising agents.

8 Exposure controls / personal protection

Control parameters

Product	No occupational exposure limits established.

Exposure controls

Engineering controls	Local exhaust ventilation; general ventilation for small quantities.
Eye / face	Safety glasses with side shields (EN 166 / ANSI Z87.1).
Hands	Nitrile rubber gloves, ≥ 0.11 mm (EN ISO 374); change when contaminated.
Body	Laboratory coat or protective work clothing.
Respiratory	Combination filter type A-P2 where vapours or mists may be generated.
Hygiene	Wash hands before breaks and at the end of work. Keep work clothing separate.

9 Physical and chemical properties

Physical state	Liquid / viscous liquid
Colour / appearance	Colourless to pale yellow mobile liquid
Odour	Characteristic
Odour threshold	No data available
Melting point / range	No data available
Boiling point / range	No data available
Flammability	Flammable liquid
Lower / upper explosion limit	No data available
Flash point	Expected below 60 °C — to be measured (ISO 2719 / ISO 3679)
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	Not applicable
Kinematic viscosity	No data available
Solubility	Insoluble to sparingly soluble in water; soluble in oils and ethanol
Partition coefficient n-octanol/water	No data available
Vapour pressure	No data available
Density	Typically 0.85–1.05 g/mL at 20 °C
Particle characteristics	Not applicable

10 Stability and reactivity

Reactivity	No dangerous reactions known under normal conditions of use.
Chemical stability	Stable under the recommended storage conditions.
Possibility of hazardous reactions	None known.

Conditions to avoid	Heat, direct sunlight, moisture, ignition sources.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	See section 5.

11 Toxicological information

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion / irritation	Skin irritation, Category 2 (H315)
Serious eye damage / irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Skin sensitisation, Category 1 (H317)
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT – single exposure	Based on available data, the classification criteria are not met.
STOT – repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Aspiration hazard, Category 1 (H304)

Information on constituents

- d-Limonene (C10H16, CAS 5989-27-5, PubChem CID 440917): reported classification H226, H304, H315, H317, H400, H410, H412 — ECHA C&L Inventory aggregated notifications (codes reported by ≥50% of notifiers); EU CLP Annex VI harmonised classification; NITE-CMC (carcinogenicity, mutagenicity and sensitisation endpoints).

12 Ecological information

Toxicity	Hazardous to the aquatic environment – acute, Category 1 (H400); Hazardous to the aquatic environment – chronic, Category 1 (H410).
Persistence and degradability	Botanical material; expected to be biodegradable.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
PBT / vPvB	Not assessed.
Other adverse effects	Avoid release to the environment in large quantities.

13 Disposal considerations

Product	Dispose of via a licensed waste contractor in accordance with local, regional and national regulations. Treat as hazardous waste.
Packaging	Empty containers completely; recycle or dispose of in the same way as the product.
Sewage disposal	Do not discharge to drains.

14 Transport information

UN number	UN1169

UN proper shipping name	EXTRACTS, AROMATIC, LIQUID
Transport hazard class	3
Packing group	III
Environmental hazard	Yes — marine pollutant
Regulations	ADR/RID, IMDG Code, IATA DGR, US DOT 49 CFR
Note	Derived from the calculated hazard classification. Packing group I applies if the measured LD50/LC50 falls in Category 1. Limited/excepted-quantity provisions may apply to small packs; the shipper must confirm before dispatch and show the 24-hour emergency response number +91 81781 17600 (24 h) on the transport documents.

15 Regulatory information

- EU REACH: botanical extract (UVCB substance). The EU importer must confirm the registration or exemption status for the import route.
- US TSCA: inventory status not determined; the importer must confirm before import for non-exempt uses (food, supplement, cosmetic and drug uses are outside TSCA).
- Chemical safety assessment: not carried out.

16 Other information

Revision	1.0 — first issue, 24 October 2026
Prepared by	CHOLAD PRIVATE LIMITED (Extrakte) — choladco@gmail.com
Key data sources	PubChem (NIH) GHS classification summaries of the ECHA C&L Inventory and EU CLP Annex VI; supplier product specifications.
Training advice	Handle only after reading this SDS. Users should be trained in the handling of liquid raw materials and chemical raw materials.

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

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.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations: ACGIH – American Conference of Governmental Industrial Hygienists; ATE – acute toxicity estimate; CID – PubChem compound identifier; CLP – Regulation (EC) No 1272/2008; GHS – Globally Harmonized System; OSHA – US Occupational Safety and Health Administration; PEL – permissible exposure limit; STOT – specific target organ toxicity; TLV – threshold limit value.

This Safety Data Sheet was prepared by CHOLAD PRIVATE LIMITED (trading as Extrakte) on the basis of the product's composition and published classification data for its marker constituents (PubChem GHS summaries of ECHA C&L Inventory notifications and EU CLP Annex VI harmonised entries). It describes the product as supplied, for professional and industrial users, and does not replace the user's own risk assessment. The information is believed to be correct at the date of issue but is given without warranty. Certificates of Analysis are issued per lot and are available on request.