

Litsea Cubeba Oil TDS, COA, MSDS Reference Documents from HiSiaddi

I. TDS Technical Data Sheet

Basic Product Information

1. Product Name: Litsea Cubeba Oil
2. English Name: Litsea Cubeba Oil
3. CAS No.: 68855-99-2
4. FEMA No.: 3846
5. Extraction Process: Steam distillation of fresh litsea cubeba fruits
6. Applicable Standards: GB/T 11424-2008, GB 1886.35-2015, ISO 3214
7. Main Applications: Food flavorings, daily chemical fragrances, pharmaceutical bacteriostatic agents, raw material for synthetic citral / ionone

Physicochemical Technical Indicators (20°C)

表格

Test Item	Standard Range	Typical Measured Value	Test Method
Appearance	Pale yellow to yellow clear flowing liquid	Pale yellow transparent liquid	Visual Inspection
Odor	Distinct fresh lemon fruity aroma, no rancid or foreign odor	Pure citral aroma	GB/T 14454.2
Relative Density $d_{20/20}$	0.880 ~ 0.905	0.886	GB/T 11540
Refractive Index n_{D20}	1.4800 ~ 1.4900	1.4845	GB/T 14454.4
Optical Rotation $[\alpha]_{D20}$	+3° ~ +12°	+7.2°	GB/T 14454.5
Miscibility with Ethanol	1 volume oil dissolves in 3 volumes of 90% ethanol, clear solution	Fully clear	GB/T 14455.3
Citral (Geranial + Neral)	≥66.0% (Food Grade); ≥74% (Industrial Grade)	78.5%	GC Gas Chromatography
Acid Value	≤3.0 mgKOH/g	1.2 mgKOH/g	GB/T 14455.10
Peroxide Value	≤10 meq/kg	4.6 meq/kg	Titration Method

Test Item	Standard Range	Typical Measured Value	Test Method
Moisture Content	≤0.3%	0.15%	Karl Fischer Method
Heavy Metal (Lead)	≤1 ppm (Food Grade)	<0.1 ppm	Atomic Absorption Spectrometry

Component Composition (GC Normalization Method)

Citral 70%~85%, Methylheptenone 2%~4%, Citronellal 0.8%~1.5%, α-Pinene, Limonene, Geraniol, trace terpenoids

Storage & Packaging

- Packaging: 25kg/200kg food-grade galvanized iron drums, IBC tote tanks
- Storage: Sealed, light-proof, cool and dry environment (≤25°C), away from heat and open flame; shelf life 12 months
- Transportation: UN1993 Class 3 Flammable Liquid, general hazardous goods for sea and land transportation

II. COA Certificate of Analysis

COA No.: LC-OIL-20260626-01

Product: Litsea Cubeba Oil

Batch No.: 20260618

Production Date: 2026-06-18

Test Date: 2026-06-26

Grade: Food Grade (Compliant with GB 1886.35-2015)

表格

Test Item	Standard Limit	Test Result	Single Item Judgment
Sensory Properties	Pale yellow clear liquid with characteristic lemon aroma	Compliant	Pass
Relative Density $d_{20/20}$	0.880~0.905	0.8862	Pass
Refractive Index $n_{D_{20}}$	1.4800~1.4900	1.4843	Pass
Optical Rotation $[\alpha]_{D_{20}}$	+3°~+12°	+7.1°	Pass
Miscibility with 90% Ethanol	Clear without turbidity	Clear	Pass
Total Citral Content	≥66.0%	78.32%	Pass

Test Item	Standard Limit	Test Result	Single Item Judgment
Acid Value	≤3.0 mgKOH/g	1.18 mgKOH/g	Pass
Peroxide Value	≤10 meq/kg	4.5 meq/kg	Pass
Moisture Content	≤0.3%	0.14%	Pass
Heavy Metal Lead (Pb)	≤1 mg/kg	<0.1 mg/kg	Pass
Arsenic (As)	≤3 mg/kg	Not Detected	Pass
Total Microbial Count	≤1000 CFU/g	86 CFU/g	Pass
Pathogens (Salmonella / Escherichia Coli)	Not Detectable	Not Detected	Pass

Conclusion: All indicators of this batch of litsea cubeba oil comply with GB 1886.35-2015 Food Additive Standard, judged Qualified.

Tester: XXX Auditor: XXX Seal: Special Quality Inspection Seal

III. MSDS / SDS Safety Data Sheet (Full 16-section Version per GB/T 16483-2020)

1. Chemical and Enterprise Identification

- Product Name: Litsea Cubeba Oil
- English Name: Litsea Cubeba Oil
- CAS No.: 68855-99-2
- Supplier: XXX Flavors & Fragrances Co., Ltd.
- 24h Emergency Hotline: XXX-XXXXXXX
- National Chemical Accident Emergency Hotline: 0532-83889090

2. Hazard Identification

GHS Classification: Flammable Liquid Category 3; Skin Corrosion/Irritation Category 2; Serious Eye Damage/Eye Irritation Category 2A; Acute Dermal Toxicity Category 5

Pictograms: GHS02 (Flame), GHS07 (Exclamation Mark)

Signal Word: Warning

Hazard Statements:

H226 Flammable liquid and vapor

H313 May be harmful in contact with skin

H315 Causes skin irritation

H319 Causes serious eye irritation

Precautionary Statements:

P210 Keep away from heat, sparks, open flames. No smoking.

P280 Wear protective gloves and eye protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

3. Composition / Information on Ingredients

Mixture; main component Citral CAS:5392-40-5 70~85%; other natural terpenoid essential oil components with no highly toxic substances.

4. First-Aid Measures

- Inhalation: Remove victim to fresh air; if breathing difficulty occurs, seek medical treatment.
- Skin Contact: Take off contaminated clothing; rinse skin thoroughly with soap and water for 15 minutes. Seek medical help if itching or redness appears.
- Eye Contact: Flush eyes continuously with plenty of running water; immediately consult an ophthalmologist.
- Ingestion: Do NOT induce vomiting; dilute with warm water. Do not give anything by mouth to an unconscious person; seek prompt medical care.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Foam, dry powder, carbon dioxide, water mist. Do not use direct water jet on burning liquid surface.

Combustion Products: Carbon monoxide, irritating aldehyde fumes.

Firefighter Protection: Self-contained breathing apparatus (SCBA), full chemical resistant suit.

Flash Point: 54.4°C (130°F)

6. Accidental Release Measures

Isolate spill area and eliminate all ignition sources. For small spills, absorb with sand or absorbent cotton. For large spills, build dikes to contain liquid and collect into sealed hazardous waste drums. Do not discharge directly into sewers or water bodies.

7. Handling and Storage

Handling: Mandatory ventilation in workshop; equipment grounded for anti-static protection; no eating or smoking.

Storage: Cool sealed warehouse, temperature $\leq 25^{\circ}\text{C}$; store separately from oxidants and strong acids.

8. Exposure Controls / Personal Protection

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Ventilation: Local exhaust ventilation + general air exchange.

Hand Protection: Nitrile oil-resistant gloves.

Eye Protection: Chemical safety goggles.

Body Protection: Anti-static work clothes.

9. Physical and Chemical Properties

Appearance: Pale yellow transparent oily liquid

Odor: Strong lemon fruity aroma

Relative Density (Water=1): 0.886

Boiling Point: 232°C

Flash Point: 54.4°C

Vapor Pressure: Low

Water Solubility: Insoluble in water; soluble in ethanol, oils and organic solvents.

10. Stability and Reactivity

Stable under normal temperature. Avoid contact with strong oxidants, high temperature and light. Prone to oxidation and rancidity after long-term storage. No hazardous polymerization reactions.

11. Toxicological Information

Oral LD50 (Rat) >2000 mg/kg; mild skin irritation; no clear carcinogenic or mutagenic data. Citral is a common fragrance sensitizer, protective measures required for sensitive populations.

12. Ecological Information

Slightly hazardous to aquatic organisms; direct discharge into water bodies prohibited. Natural terpenoids can be slowly biodegraded.

13. Disposal Considerations

Dispose as flammable organic hazardous waste via qualified incineration contractors; random dumping forbidden.

14. Transport Information

UN Number: UN1993

Proper Shipping Name: Flammable liquids, n.o.s. (Plant Essential Oil)

Packing Group: Group III

Transport Taboos: Separate loading from oxidants and food materials.

15. Regulatory Information

Domestic: GHS Classification per GB30000, Regulations on the Safety Administration of Hazardous Chemicals, Food Additive Standard GB 1886.35

EU: REACH Registration, CLP Labeling Regulation, Fragrance Allergen

Labeling Requirements

USA: Listed on TSCA Inventory, FEMA GRAS approved for food use

16. Other Information

Preparation Date: 2026-06-26

Revision Version: V2.0

Reference Standards: GB/T 16483-2020, ISO GHS, GB/T 17519

Usage Instructions

1. The above TDS/COA/MSDS are general compliant templates, which can be directly modified with enterprise, batch and measured data for customs declaration, factory audit, REACH registration and food/cosmetic filing.
2. If needed, printable Word/PDF full English TDS+COA+SDS (EU export dedicated) or full Chinese-English bilingual versions can be generated.