

PLUME™

THE ART OF ATMOSPHERE

Safety Data Sheet

This Safety Data Sheet was prepared using supplier hazard data and classified in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Revision 1.0 | August 24, 2026

24-HOUR EMERGENCY CONTACT

CHEMTREC 1-800-424-9300

Contract ID: CCN1026268

SECTION 1

Identification

Product Name

January

Product Code / SKU

P-CA-50

Product Type

Fragrance Oil Blend

Collection

Calendar

Manufacturer

PLUME™

Louisiana, USA
www.PlumeFragrance.com
contact@plumefragrance.com

Recommended Use

Fragrance ingredient for candles, melts, soap and home fragrance products. PLUME™ fragrances are carefully developed to deliver exceptional performance in candle applications while remaining versatile for use across multiple fragranced products when used within applicable IFRA usage limits.

Restrictions on Use

Supplied as a fragrance ingredient for further manufacturing only. Not intended to be used undiluted or as a finished consumer product. Do not use in food, drugs, or apply directly to skin unless the finished product has been appropriately formulated, evaluated for safety, and complies with applicable regulations and IFRA Standards.

Prepared By

PLUME™ Regulatory Affairs

Hazard Identification

Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation, Category 2 — H315 Causes skin irritation.

Skin sensitization, Category 1 — H317 May cause an allergic skin reaction.

Other hazards: No additional information available.

Unknown acute toxicity: Not applicable.

Signal word (GHS US): Warning

Hazard statements (GHS US):

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

Precautionary statements

P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P280 - Wear protective gloves.

P302+P352 - If on skin: Wash with plenty of water.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

GHS US labeling

Hazard pictogram (GHS US):

**Other Hazards**

No additional information available

Composition/Information on ingredients

LIMONENE

CAS-No. 5989-27-5

1-5

Name	Product Identifier	%	GHS US classification
BENZYL BENZOATE	CAS-No. 120-51-4	30-70	Acute Tox. 4 (Oral), H302
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone (Iso E Super)	CAS-No. 54464-57-2	10-30	Skin Irrit. 2 H315; Skin Sens. 1B H317
	CAS-No. 139504-68-0	1-5	Eye Irrit. 2B H320
2-T-BUTYLCYCLOHEXYLOXYBUTANOL	CAS-No. 19870-74-7	1-5	Skin Sens. 1B H317
CEDROL METHYL ETHER			
Dihydromyrcenol	CAS-No. 18479-58-8	1-5	Flam. Liq. 4 H227; Skin Irrit. 2 H315; Eye Irrit. 2A H319; STOT SE 3 H336
PENTADECALACTONE	CAS-No. 106-02-5	1-5	Skin Sens. 1B H317
LINALYL ACETATE	CAS-No. 115-95-7	1-5	Flam. Liq. 4 H227; Skin Irrit. 2 H315; Eye Irrit. 2B H320; Skin Sens. 1B H317
CITRAL	CAS-No. 5392-40-5	0.1-1	Skin Irrit. 2 H315; Eye Irrit. 2A H319; Skin Sens. 1 H317

Full text of hazard classes and H-statements: see Section 16.

4.1 Description of first aid measures

General: If you feel unwell, seek medical advice.**Inhalation:** Remove person to fresh air and keep comfortable for breathing.**Skin:** Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.**Eyes:** Rinse eyes with water as a precaution.**Ingestion:** Call a poison center/doctor/physician if you feel unwell.**Symptoms:** inhalation none under normal conditions; skin irritation and may cause an allergic skin reaction; eyes none under normal conditions; ingestion none under normal conditions.**Immediate treatment:** Treat symptomatically.

4.2 Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation: None under normal conditions.

Symptoms/effects after skin contact: May cause an allergic skin reaction.

Symptoms/effects after eye contact: Eye irritation.

Symptoms/effects after ingestion: Harmful if swallowed.

4.3 Immediate medical attention and special treatment, if necessary

Treat symptomatically.

Fire-Fighting measures

Suitable (and unsuitable extinguishing media

Suitable media: Water spray, dry powder, foam, carbon dioxide.**Unsuitable media:** Do not use a heavy water stream.

Specific Hazards

Fire hazard: No fire hazard.**Explosion hazard:** No direct explosion hazard.

Special protective equipment and precautions for fire-fighters

Firefighting instructions: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.**Protection:** Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

For Non-Emergency Personnel

Protective equipment: Wear recommended personal protective equipment.

Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

Emergency responders: Do not attempt to take action without suitable protective equipment. For further information refer to section 8. Evacuate unnecessary personnel. Stop leak if safe to do so.

For Emergency Responders

Containment: Absorb spilled material with sand or earth. Contain spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak if possible without risk.

Environmental precautions: Avoid release to the environment.

Environmental Precautions

Avoid release to the environment. Prevent entry into drains, surface waters, groundwater, and soil.

Cleaning: Take up liquid spill into absorbent material. Dispose of materials or solid residues at an authorized site.

Reference: For further information refer to section 13.

Handling and Storage

Additional hazards when processed: Not expected to present a significant hazard under anticipated conditions of normal use.

Safe handling: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapors/spray.

Hygiene: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Storage: Keep in a cool, well-ventilated place away from heat. Keep cool. Protect from sunlight. Always store product in container of same material as original container.

Safe handling and storage: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Wash contaminated clothing before reuse.

Exposure Controls

Control parameters

CITRAL 5392-40-5

ACGIH local name: Citral

ACGIH TLV TWA: 5 ppm (IFV - Inhalable fraction and vapor)

Remark: TLV Basis: Body weight eff; URT irr; eye dam.

Notations: Skin; DSEN; A4 (Not classifiable as a Human Carcinogen)

Regulatory reference: ACGIH 2024

Limonene, Linalyl Acetate, 2-T-Butylcyclohexyloxybutanol, Benzyl Benzoate, Cedrol Methyl Ether, Dihydromyrcenol, Iso E Super, and Pentadecalactone: Not applicable.

Engineering controls: Ensure good ventilation of the work station. Avoid release to the environment.

Personal protective equipment: Wear recommended personal protective equipment.

Hand protection: Protective gloves.

Eye protection: Safety glasses.

Skin/body protection: Wear suitable protective clothing.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Personal protective equipment symbols: Protective gloves; Safety glasses; Protective clothing.

Physical and Chemical Properties

Property	Value
Physical state	Liquid
Color	No data available
Odor	No data available
Odor threshold	No data available
pH	No data available
Melting point	Not applicable
Freezing point	No data available
Boiling point	No data available
Flash point	> 100 °C
Relative evaporation rate (butyl acetate=1)	No data available
Flammability	Not applicable
Vapor pressure	No data available
Relative vapor density at 20°C	No data available
Relative density	No data available
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosion limits	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Stability and Reactivity

Product non-reactive under normal conditions of use, storage and transport.

Chemical Stability

Stable under normal conditions of storage and handling.

No dangerous reactions known under normal conditions of use.

Conditions to avoid: None under recommended storage and handling conditions (see section 7).

Incompatible materials: No additional information available.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Toxicological Information

Acute toxicity oral, dermal, inhalation: No data available.

Limonene LD50 oral rat > 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Read-across, Oral); LD50 dermal rabbit > 5000 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Weight of evidence, Dermal).

2-T-Butylcyclohexyloxybutanol LD50 oral rat > 2000 mg/kg (Rat, Oral); LD50 dermal rat > 2000 mg/kg (Rat, Dermal).

Benzyl Benzoate LD50 oral rat > 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male/female, Experimental value, Oral, 14 day(s)); LD50 dermal rabbit > 2 ml/kg (Modification of Draize 1959 method, 4 h, Rabbit, Experimental value, Dermal); ATE US (oral) 1160 mg/kg body weight.

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: No data available.

Respiratory or skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

Limonene IARC group 3 - Not classifiable.

Reproductive toxicity: No data available.

STOT-single exposure: No data available.

Dihydromyrcenol STOT-single exposure: May cause drowsiness or dizziness.

STOT-repeated exposure: No data available.

Aspiration hazard: No data available.

Viscosity, kinematic: No data available.

Symptoms/effects after inhalation: None under normal conditions.

After skin contact: Irritation. May cause an allergic skin reaction.

After eye contact: None under normal conditions.

After ingestion: None under normal conditions.

Ecological Information

Toxicity

General: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Limonene LC50 fish 720 µg/l (OECD 203, 96 h, Pimephales promelas, flow-through, fresh water, experimental value, lethal); EC50 crustacea 0.36 mg/l (OECD 202, 48 h, Daphnia magna, static, fresh water, experimental value, GLP).

Linalyl Acetate LC50 fish 11 mg/l (OECD 203, 96 h, Cyprinus carpio); EC50 crustacea 15 mg/l (OECD 202, 48 h, Daphnia magna).

Benzyl Benzoate LC50 fish 2.32 mg/l (EU Method C.1, 96 h, Danio rerio, semi-static, fresh water, experimental value, GLP); EC50 crustacea 3.09 mg/l (OECD 202, 48 h, Daphnia magna, static, fresh water, experimental value, GLP).

Persistence and degradability

Persistence:

Limonene readily biodegradable in water; ThOD 3.29 g O₂/g substance.

Linalyl Acetate readily biodegradable in water. 2-T-Butylcyclohexyloxybutanol not readily biodegradable in water.

Benzyl Benzoate readily biodegradable in water. Dihydromyrcenol: Biodegradability in water: no data available.

Bioaccumulative potential

Bioaccumulation: Limonene BCF fish 864.8–1022 (Pisces, QSAR, fresh weight); Log Pow 4.38 (experimental value, OECD 117 HPLC method, 37°C); potential for bioaccumulation ($4 \geq \text{Log Kow} \leq 5$).

Linalyl Acetate Log Pow 3.93 (experimental value); low potential for bioaccumulation ($\text{Log Kow} < 4$). Benzyl

Benzoate BCF fish 2.286 (BCFBAF v3.00, Pisces, QSAR); Log Pow 3.97 (experimental value, 25°C); low potential for bioaccumulation ($\text{Log Kow} < 4$).

Dihydromyrcenol Log Pow 3.47 (estimated value); low potential for bioaccumulation ($\text{Log Kow} < 4$).

Mobility in soil

Mobility in soil:

Limonene adsorbs into the soil.

Linalyl Acetate adsorbs into the soil.

Benzyl Benzoate surface tension 0.027 N/m (210°C); Log Koc 3.8 (OECD 121 HPLC, experimental value); low potential for mobility in soil.

Dihydromyrcenol: No (test)data on mobility of the substance available.

Other adverse effects

No additional information available.

Disposal Considerations

Category	Requirement
Regional waste regulation	Disposal must be done according to official regulations.
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	Do not re-use empty containers.
Product/Packaging disposal recommendations	Disposal must be done according to official regulations.
Additional information	Do not re-use empty containers.

Transport Information

Department of Transportation (DOT)

In accordance with DOT

Transport document description (DOT)

UN3082 Environmentally hazardous substances, liquid, n.o.s. (BENZYL BENZOATE), 9, III

UN-No.: UN3082

Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s. BENZYL BENZOATE

Class: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Packing group: III - Minor Danger

Hazard labels: 9 - Class 9 (Miscellaneous dangerous materials)



Transport Information

Department of Transportation (DOT)

DOT Packaging Non-Bulk (49 CFR 173.xxx): 203

DOT Packaging Bulk (49 CFR 173.xxx): 241

DOT Symbols: G – Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102)

8 – A hazardous substance that is not a hazardous waste may be shipped under the shipping description “Other regulated substances, liquid or solid, n.o.s.,” as appropriate. In addition, for solid materials, special provision B54 applies.

146 – This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in §171.8 of this subchapter, or any hazardous substance defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.

173 – An appropriate generic entry may be used for this material.

335 – Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as “Environmentally hazardous substances, solid, n.o.s.,” UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging.

IB3 – Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50°C (1.1 bar at 122°F), or 130 kPa at 55°C (1.3 bar at 131°F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).

T4 – 2.65 178.274(d)(2) Normal 178.275(d)(3)

TP1 – The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / [1 + \alpha (tr - tf)]$, where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees Celsius of the liquid during filling.

TP29 – A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

Additional DOT Information

DOT Packaging Exceptions (49 CFR 173.xxx): 155

DOT Quantity Limitations Passenger Aircraft/Rail (49 CFR 173.27): No Limit

DOT Quantity Limitations Cargo Aircraft Only (49 CFR 175.75): No Limit

DOT Vessel Stowage Location:

A – The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

Emergency Response Guide (ERG) Number: 171

Other information:

No supplementary information available.

Regulatory Information

US Federal Regulations

No additional information available.

The product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of SARA of 1986 and 40 CFR Part 372.

Other Information

Revision History

Version	Date	Description
1	08/26/2026	

Disclaimer

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.