

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** CITRONELLA F50466

**Version:** 3

### Section 1. Identification of the substance or the mixture and of the supplier

#### 1.1 Product Identifier

**Product identifier:** CITRONELLA F50466(Contains:Citronellal, Coumarin, Geraniol, dl-Citronellol)

**Other identifiers:** None

#### 1.2 Relevant identified uses of the substance of mixture and uses advised against

**Product uses:** Fragrances

#### 1.3 Details of the supplier of the safety data sheet

**Company name:** Aromatic Fragrances International, Inc

**Company address:** 85 Wansley Drive SE  
Cartersville  
GA 30121  
USA

**Contact:** Regulatory Affairs

**E-Mail address:** regulatory@afi-usa.com

**Company phone:** 770-334-3906

#### 1.4 Emergency telephone number

**Emergency phone:** 770-334-3906

### Section 2. Hazards identification

#### 2.1 Classification of the substance or mixture

**Class and category of danger:** Skin Corrosion / Irritation Category 2  
Eye Damage / Irritation Category 1  
Sensitization - Skin Category 1  
Hazardous to the Aquatic Environment - Acute Hazard Category 2  
H315, Causes skin irritation.  
H317, May cause an allergic skin reaction.  
H318, Causes serious eye damage.  
H401, Toxic to aquatic life.

#### 2.2 Label elements

**Signal word:** Danger

**Hazard statements:** H315, Causes skin irritation.  
H317, May cause an allergic skin reaction.  
H318, Causes serious eye damage.  
H401, Toxic to aquatic life.

**Precautionary statements:** P261, Avoid breathing vapour or dust.  
P264, Wash hands and other contacted skin thoroughly after handling.  
P272, Contaminated work clothing should not be allowed out of the workplace.

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** CITRONELLA F50466

**Version:** 3

P273, Avoid release to the environment.  
 P280, Wear protective gloves/eye protection/face protection.  
 P302/352, IF ON SKIN: Wash with plenty of soap and water.  
 P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310, Immediately call a POISON CENTER or doctor/physician.  
 P333/313, If skin irritation or rash occurs: Get medical advice/attention.  
 P362, Take off contaminated clothing and wash before reuse.  
 P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

**Pictograms:**



### 2.3 Other hazards

**Other hazards:** None

## Section 3. Composition / information on ingredients

### 3.2 Mixtures

**Contains:**

Name	CAS	%	GHS Classification
Citronellal	106-23-0	10-<20%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2;H227-H303-H313-H315-H317-H319-H401
Coumarin	91-64-5	5-<10%	Acute Tox. 4-Skin Sens. 1B-Aquatic Acute 3;H302-H317-H402
Geraniol	106-24-1	5-<10%	Acute Tox. 5-Skin Irrit. 2-Eye Dam. 1-Skin Sens. 1-Aquatic Acute 3;H303-H315-H317-H318-H402
dl-Citronellol	106-22-9	1-<5%	Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2;H303-H313-H315-H317-H319-H401
Geranyl acetate	105-87-3	1-<5%	Skin Irrit. 2-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 3;H315-H317-H401-H412
d-Limonene	5989-27-5	1-<5%	Flam. Liq. 3-Skin Irrit. 2-Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 3;H226-H304-H315-H317-H400-H412
Citral	5392-40-5	0.1-<1%	Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1-Aquatic Acute 2; H313-H315-H317-H319-H401
2-Hydroxy-alpha,alpha,4-trimethylcyclohexanemethanol	42822-86-6	0.1-<1%	Flam. Liq. 3-Eye Dam. 1-Aquatic Acute 3;H226-H318-H402
Eugenol	97-53-0	0.1-<1%	Acute Tox. 5-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2;H303-H317-H319-H401
beta-Caryophyllene	87-44-5	0.1-<1%	Skin Sens. 1B-Asp. Tox 1-Aquatic Chronic 4;H304-H317-H413
l-Limonene	5989-54-8	0.1-<1%	Flam. Liq. 3-Skin Irrit. 2-Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 3;H226-H304-H315-H317-H400-H412

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** CITRONELLA F50466

**Version:** 3

Citronellyl acetate	150-84-5	0.1-<1%	Skin Irrit. 2-Aquatic Acute 2-Aquatic Chronic 2;H315-H411
l-Citronellol	7540-51-4	0.1-<1%	Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2;H303-H313-H315-H317-H319-H401
Isoeugenol	97-54-1	<0.1%	Acute Tox. 4-Acute Tox. 4-Acute Tox. 4-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1A-STOT SE 3-Aquatic Acute 2; H302-H312-H315-H317-H319-H332-H335-H401

**Substances with workplace exposure limits, not listed above:**

Not Applicable

### Section 4. First-aid measures

**4.1 Description of first aid measures**

- Inhalation:** Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
- Eye exposure:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Skin exposure:** IF ON SKIN: Wash with plenty of soap and water.
- Ingestion:** Rinse mouth with water and obtain medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

- Causes skin irritation.
- May cause an allergic skin reaction.
- Causes serious eye damage.

**4.3 Indication of any immediate medical attention and special treatment needed**

None expected, see Section 4.1 for further information.

### SECTION 5: Firefighting measures

**5.1 Extinguishing media**

Suitable media: Carbon dioxide, Dry chemical, Foam.

**5.2 Special hazards arising from the substance or mixture**

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

**5.3 Advice for fire fighters:**

In case of insufficient ventilation, wear suitable respiratory equipment.

### Section 6. Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures:**

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

**6.2 Environmental precautions:**

Keep away from drains, surface and ground water, and soil.

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** CITRONELLA F50466

**Version:** 3

### 6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

### 6.4 Reference to other sections:

Also refer to sections 8 and 13.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

### 7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

### 7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

**Workplace exposure limits:** Not Applicable

### 8.2 Exposure Controls

#### Eye / Skin Protection

Wear protective gloves/eye protection/face protection

#### Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Appearance:</b>	Free flowing liquid without sediment
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** CITRONELLA F50466

**Version:** 3

<b>pH:</b>	Not determined
<b>Melting point / freezing point:</b>	Not determined
<b>Initial boiling point / range:</b>	Not determined
<b>Flash point:</b>	> 93 °C
<b>Evaporation rate:</b>	Not determined
<b>Flammability (solid, gas):</b>	Not determined
<b>Upper/lower flammability or explosive limits:</b>	Product does not present an explosion hazard
<b>Vapour pressure:</b>	Not determined
<b>Vapour density:</b>	Not determined
<b>Relative density:</b>	-0.0050 - 0.0050
<b>Solubility(ies):</b>	Not determined
<b>Partition coefficient: n-octanol/water:</b>	Not determined
<b>Auto-ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not determined
<b>Viscosity:</b>	Not determined
<b>Explosive properties:</b>	Not expected
<b>Oxidising properties:</b>	Not expected

### 9.2 Other information:

Refractive Index @ 20C:	-0.0015 - 0.0015
Flash Point (Fahrenheit):	> 200 °F

## Section 10. Stability and reactivity

### 10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

### 10.2 Chemical stability:

Good stability under normal storage conditions.

### 10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

### 10.4 Conditions to avoid:

Avoid extreme heat.

### 10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

### 10.6 Hazardous decomposition products:

Not expected.

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** CITRONELLA F50466

**Version:** 3

### Section 11. Toxicological information

**11.1 Information on toxicological effects**

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

**Acute Toxicity:** Based on available data the classification criteria are not met.  
 Acute Toxicity Oral >5000  
 Acute Toxicity Dermal >5000  
 Acute Toxicity Inhalation Not Available  
**Skin corrosion/irritation:** Skin Corrosion / Irritation Category 2  
**Serious eye damage/irritation:** Eye Damage / Irritation Category 1  
**Respiratory or skin sensitisation:** Sensitization - Skin Category 1  
**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:** Based on available data the classification criteria are not met.

**Information about hazardous ingredients in the mixture**

Ingredient	CAS	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
Citronellal	106-23-0	2500	Not available	Not available	Not available
Coumarin	91-64-5	500	Not available	Not available	Not available
Geraniol	106-24-1	3600	Not available	Not available	Not available
dl-Citronellol	106-22-9	3450	2650	Not available	Not available

Refer to Sections 2 and 3 for additional information.

### Section 12. Ecological information

**12.1 Toxicity:** Not available  
**12.2 Persistence and degradability:** Not available  
**12.3 Bioaccumulative potential:** Not available  
**12.4 Mobility in soil:** Not available  
**12.5 Other adverse effects:** Not available

### Section 13. Disposal considerations

**13.1 Waste treatment methods:**

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** CITRONELLA F50466

**Version:** 3

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4. Packing Group:
<b>UN Model Regulations</b>	Not classified	-	-	-	-
<b>IMDG</b>	Not classified	-	-	-	-
<b>ADR,RID,ADN</b>	Not classified	-	-	-	-
<b>ICAO TI</b>	Not classified	-	-	-	-

**14.5 Environmental hazards:** Not environmentally hazardous for transport

**14.6 Special precautions for user:** None additional

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:**

Not classified

### Section 15. Regulatory information

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** CITRONELLA F50466

**Version:** 3

Essential Oil Components:

Name	CAS	%
CITRONELLA OIL JAVA	91771-61-8	5-<10%
AMYRIS OIL	8015-65-4	1-<5%
ORANGE ESSENCE OIL	8008-57-9	1-<5%
GERANIUM OIL CHINESE	8000-46-2	0.1-<1%
LEMON OIL CALIFORNIA	8008-56-8	<0.1%

Additional formulation properties

Name	CAS	%
Vanillin	121-33-5	0.1-<1%

Components listed on California's SB312

Name	CAS	%
DIOCTYL ADIPATE ( S ) "DOA"	103-23-1	50-100%
COUMARIN ( C )	91-64-5	5-<10%
GERANIOL 980	106-24-1	1-<5%
CITRAL	5392-40-5	0.1-<1%
EUGENOL	97-53-0	0.1-<1%
LINALOOL	78-70-6	0.1-<1%

US Department Of Transport Bulk Packing -  
 Group:

Naturally-Occuring Materials on Prop65:

Name	CAS	%
Eugenyl methyl ether (Naturally-Occurring)	93-15-2	
Myrcene	123-35-3	

### Section 16. Other information

**Concentration % Limits:** SCI 2=40.87% SCI 3=3.92% EDI 1=57.81% EDI 2A=13.63% SS 1=7.25%  
 EH A2=78.51% EH A3=7.58%

**Total Fractional Values:** SCI 2=2.45 SCI 3=25.49 EDI 1=1.73 EDI 2A=7.34 SS 1=13.80 EH A2=1.27  
 EH A3=13.18

**Key to revisions:**

Concentration % Limits

SECTION 3: Composition/information on ingredients

Total Fractional Values

**Key to abbreviations:**

Abbreviation	Meaning
Acute Tox. 4	Acute Toxicity - Oral Category 4
Acute Tox. 4	Acute Toxicity - Dermal Category 4



## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** CITRONELLA F50466

**Version:** 3

Acute Tox. 4	Acute Toxicity - Inhalation Category 4
Acute Tox. 5	Acute Toxicity - Oral Category 5
Aquatic Acute 1	Hazardous to the Aquatic Environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the Aquatic Environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the Aquatic Environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
Aquatic Chronic 3	Hazardous to the Aquatic Environment - Long-term Hazard Category 3
Aquatic Chronic 4	Hazardous to the Aquatic Environment - Long-term Hazard Category 4
Asp. Tox 1	Aspiration Hazard Category 1
Eye Dam. 1	Eye Damage / Irritation Category 1
Eye Irrit. 2A	Eye Damage / Irritation Category 2A
Flam. Liq. 3	Flammable Liquid, Hazard Category 3
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H226	Flammable liquid and vapour.
H227	Combustible liquid.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H313	May be harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life.
H402	Harmful to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** CITRONELLA F50466

**Version:** 3

P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P301/310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P303/361/353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304/340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P330	Rinse mouth.
P331	Do not induce vomiting.
P332/313	If skin irritation occurs: Get medical advice/attention.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P391	Collect spillage.
P403/233	Store in a well-ventilated place. Keep container tightly closed.
P403/235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
STOT SE 3	Specific Target Organ Toxicity (Single Exposure) Category 3
Skin Irrit. 2	Skin Corrosion / Irritation Category 2
Skin Sens. 1	Sensitization - Skin Category 1
Skin Sens. 1A	Sensitization - Skin Category 1A
Skin Sens. 1B	Sensitization - Skin Category 1B

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.