

# SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** WHITE COPAL AND BERGAMOT F86220

**Version:** 3

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

### 1.1 Product Identifier

**Product identifier:** WHITE COPAL AND BERGAMOT F86220(Contains:4-tert-Butylcyclohexyl acetate, Citral, Linalool, Linalyl acetate)

**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

**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 2  
Sensitization - Skin Category 1  
Hazardous to the Aquatic Environment - Acute Hazard Category 2  
Hazardous to the Aquatic Environment - Long-term Hazard Category 3  
H315, Causes skin irritation.  
H319, Causes serious eye irritation.  
H317, May cause an allergic skin reaction.  
H401, Toxic to aquatic life.  
H412, Harmful to aquatic life with long lasting effects.

### 2.2 Label elements

**Signal word:** Warning

**Hazard statements:** H315, Causes skin irritation.  
H319, Causes serious eye irritation.  
H317, May cause an allergic skin reaction.  
H401, Toxic to aquatic life.

---

---

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** WHITE COPAL AND BERGAMOT F86220

**Version:** 3

**Precautionary statements:**

H412, Harmful to aquatic life with long lasting effects.

P264, Wash hands and other contacted skin thoroughly after handling.

P273, Avoid release to the environment.

P280, Wear protective gloves/eye protection/face protection.

P261, Avoid breathing vapour or dust.

P272, Contaminated work clothing should not be allowed out of the workplace.

P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302/352, IF ON SKIN: Wash with plenty of soap and water.

P337/313, If eye irritation persists: Get medical advice/attention.

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:** Hydrocarbon Concentration %: 0.0000%  
Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 17 1207/2006, Annex XIII.

### Section 3. Composition / information on ingredients

**3.2 Mixtures**

**Contains:**

Name	CAS	%	GHS Classification
4-tert-Butylcyclohexyl acetate	32210-23-4	20-<50%	Acute Tox. 5-Skin Sens. 1B-Aquatic Acute 2;H303-H317-H401
Methyl dihydrojasmonate	24851-98-7	10-<20%	Aquatic Acute 2;H401
Terpinyl acetate (Isomer mixture)	8007-35-0	10-<20%	Skin Irrit. 3-Aquatic Acute 2-Aquatic Chronic 2;H316-H411
Ethylene brassylate	105-95-3	5-<10%	Aquatic Acute 2-Aquatic Chronic 3;H401-H412
Linalyl acetate	115-95-7	5-<10%	Flam. Liq. 4-Skin Irrit. 2-Eye Irrit. 2B-Skin Sens. 1B-Aquatic Acute 3;H227-H315-H320-H317-H402
Linalool	78-70-6	1-<5%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 3;H227-H303-H315-H319-H317-H402
6,6-Dimethoxy-2,5,5-trimethylhex-2-ene	67674-46-8	1-<5%	Flam. Liq. 4-Skin Irrit. 2-Aquatic Acute 3-Aquatic Chronic 3;H227-H315-H412

# SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** WHITE COPAL AND BERGAMOT F86220

**Version:** 3

Isobornyl acetate	125-12-2	1-<5%	Flam. Liq. 4-Skin Irrit. 3-Aquatic Acute 2;H227-H316-H401
Citral	5392-40-5	1-<5%	Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1-Aquatic Acute 2; H315-H319-H317-H401
2-Methylundecanal	110-41-8	1-<5%	Flam. Liq. 4-Skin Irrit. 2-Skin Sens. 1B-Aquatic Acute 1-Aquatic Chronic 2;H227-H315-H317-H400-H411
Nerol	106-25-2	1-<5%	Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2;H303-H315-H319-H317-H401
2-(1-(3',3'-Dimethyl-1'-cyclohexyl)ethoxy)-2-methyl propyl propanoate	141773-73-1	1-<5%	Aquatic Acute 2-Aquatic Chronic 2;H411
Allyl heptanoate	142-19-8	1-<5%	Flam. Liq. 4-Acute Tox. 3-Acute Tox. 3-Aquatic Acute 1-Aquatic Chronic 2;H227-H301-H311-H400-H411
2,2,6-trimethyl- $\alpha$ -propylcyclohexanepropanol	70788-30-6	0.1-<1%	Skin Irrit. 2-Skin Sens. 1B-Aquatic Chronic 2;H315-H317-H411
alpha-Guaiene	3691-12-1	0.1-<1%	Skin Irrit. 2-Eye Irrit. 2A-Asp. Tox 1;H304-H315-H319
Coumarin	91-64-5	0.1-<1%	Acute Tox. 4-Skin Sens. 1B-Aquatic Acute 3;H302-H317-H402
Geranyl acetate	105-87-3	0.1-<1%	Skin Irrit. 2-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 3;H315-H317-H401-H412
dl-Citronellol	106-22-9	0.1-<1%	Acute Tox. 5-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2;H303-H313-H315-H319-H317-H401
2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde	68039-49-6	0.1-<1%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 2;H227-H303-H315-H317-H411
Geraniol	106-24-1	0.1-<1%	Acute Tox. 5-Skin Irrit. 2-Eye Dam. 1-Skin Sens. 1-Aquatic Acute 3;H303-H315-H318-H317-H402

## 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.

Causes serious eye irritation.

May cause an allergic skin reaction.

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

None expected, see Section 4.1 for further information.

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** WHITE COPAL AND BERGAMOT F86220

**Version:** 3

### 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.

#### 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

---

---

# SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** WHITE COPAL AND BERGAMOT F86220

**Version:** 3

## 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
<b>Melting point / freezing point:</b>	Not determined
<b>Boiling point or initial boiling point and boiling range:</b>	Not determined
<b>Flammability:</b>	Not determined
<b>Lower and upper explosion limit:</b>	Not determined
<b>Flash point:</b>	> 93 °C
<b>Auto-ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not relevant
<b>pH:</b>	Not determined
<b>Kinematic viscosity:</b>	Not determined
<b>Solubility:</b>	Not determined
<b>Partition coefficient: n-octanol/water (log value):</b>	Not determined
<b>Vapour pressure:</b>	Not determined
<b>Density and/or relative density:</b>	-0.0150 - 0.0150
<b>Relative vapour density:</b>	Not determined
<b>Particle characteristics:</b>	Not determined

### 9.2 Other information:

Flash Point (Fahrenheit):	> 200 °F
Refractive Index @ 20C:	-0.0050 - 0.0050

---

---

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** WHITE COPAL AND BERGAMOT F86220

**Version:** 3

### 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.

### 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.

<b>Acute Toxicity:</b>	Based on available data the classification criteria are not met.
Acute Toxicity Oral	>5000
Acute Toxicity Dermal	>5000
Acute Toxicity Inhalation	Not Available
<b>Skin corrosion/irritation:</b>	Skin Corrosion / Irritation Category 2
<b>Serious eye damage/irritation:</b>	Eye Damage / Irritation Category 2
<b>Respiratory or skin sensitisation:</b>	Sensitization - Skin Category 1
<b>Germ cell mutagenicity:</b>	Based on available data the classification criteria are not met.
<b>Carcinogenicity:</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity:</b>	Based on available data the classification criteria are not met.
<b>STOT-single exposure:</b>	Based on available data the classification criteria are not met.
<b>STOT-repeated exposure:</b>	Based on available data the classification criteria are not met.
<b>Aspiration hazard:</b>	Based on available data the classification criteria are not met.

**Information about hazardous ingredients in the mixture**

Ingredient	CAS	LD50/ATE Oral (mg/kg)	LD50/ATE Dermal (mg/kg)	LC50/ATE Inhalation	LC50 Route
4-tert-Butylcyclohexyl acetate	32210-23-4	3370			

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** WHITE COPAL AND BERGAMOT F86220

**Version:** 3

Allyl heptanoate	142-19-8	218	810		
Linalool	78-70-6	2790			
Nerol	106-25-2	4500			

Refer to Sections 2 and 3 for additional information.

### Section 12. Ecological information

**12.1 Toxicity:**

Harmful to aquatic life with long lasting effects.

**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:**

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

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** WHITE COPAL AND BERGAMOT F86220

**Version:** 3

### Section 15. Regulatory information

**Essential Oil Components:**

Name	CAS	%
Patchouli oil	84238-39-1, 8014-09-3	1-<5%

**Components listed on California's Proposition 65:**

Name	CAS	%
Myrcene	123-35-3	<0.1%

**Naturally-Occuring Materials exempt from Prop65:**

Name	CAS	%
Myrcene	123-35-3	

**Components listed on California's SB312**

Name	CAS	%
Linalool	78-70-6	1-<5%
Citral	5392-40-5	1-<5%
Coumarin	91-64-5	0.1-<1%
Geraniol	106-24-1	0.1-<1%

**Additional formulation properties**

Name	CAS	%
Ethyl vanillin	121-32-4	0.1-<1%
Vanillin	121-33-5	0.1-<1%

### Section 16. Other information

**Concentration % Limits:** SCI 2=52.69% SCI 3=4.64% EDI 2A=61.81% SS 1=2.45% EH A2=13.38%  
EH A3=1.33% EH C3=17.64%

**Total Fractional Values:** SCI 2=1.90 SCI 3=21.57 EDI 2A=1.62 SS 1=40.74 EH A2=7.47 EH A3=75.32  
EH C3=5.67

**Key to revisions:**

2.1 Classification of the substance or mixture

Concentration % Limits

Hazardous Ingredients disclosed in a GHS Safety Data Sheet with banded concentrations

Information about hazardous ingredients in the mixture

Ingredients with an Occupational Exposure Limit disclosed on a GHS Safety Data Sheet Banded values

SECTION 3: Composition/information on ingredients

Total Fractional Values

**Key to abbreviations:**

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** WHITE COPAL AND BERGAMOT F86220

**Version:** 3

Abbreviation	Meaning
Acute Tox. 3	Acute Toxicity - Oral Category 3
Acute Tox. 3	Acute Toxicity - Dermal Category 3
Acute Tox. 4	Acute Toxicity - Oral Category 4
Acute Tox. 5	Acute Toxicity - Oral Category 5
Acute Tox. 5	Acute Toxicity - Dermal 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
Asp. Tox 1	Aspiration Hazard Category 1
Eye Dam. 1	Eye Damage / Irritation Category 1
Eye Irrit. 2A	Eye Damage / Irritation Category 2A
Eye Irrit. 2B	Eye Damage / Irritation Category 2B
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H227	Combustible liquid.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H313	May be harmful in contact with skin.
H315	Causes skin irritation.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H320	Causes eye 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.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
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.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** WHITE COPAL AND BERGAMOT F86220

**Version:** 3

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.
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.
P361	Remove/Take off immediately all contaminated clothing.
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.
P403/235	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.
Skin Irrit. 2	Skin Corrosion / Irritation Category 2
Skin Irrit. 3	Skin Corrosion / Irritation Category 3
Skin Sens. 1	Sensitization - Skin Category 1
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.