

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: APPLE PIE F24461

Version: 2

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

1.1 Product Identifier

Product identifier: APPLE PIE F24461 (Contains: Coumarin, Eugenol, Geranyl acetate, alpha-Methylcinnamaldehyde)

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 2
H315, Causes skin irritation.
H319, Causes serious eye irritation.
H317, May cause an allergic skin reaction.
H411, Toxic 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.
H411, Toxic to aquatic life with long lasting effects.

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Precautionary statements:

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.
P391, Collect spillage.
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 |
|--------------------------------|----------|---------|---|
| 2-tert-Butylcyclohexyl acetate | 88-41-5 | 20-<50% | Acute Tox. 5-Skin Irrit. 3-Aquatic Acute 2-Aquatic Chronic 2;H303-H316-H411 |
| alpha-Methylcinnamaldehyde | 101-39-3 | 5-<10% | Acute Tox. 5-Skin Sens. 1B-Aquatic Acute 1-Aquatic Chronic 3;H303-H317-H400-H412 |
| Eugenol | 97-53-0 | 1-<5% | Acute Tox. 5-Skin Irrit. 3-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2;H303-H316-H319-H317-H401 |
| gamma-Undecalactone | 104-67-6 | 1-<5% | Aquatic Acute 2-Aquatic Chronic 3;H401-H412 |
| Diethyl malonate | 105-53-3 | 1-<5% | Flam. Liq. 4-Eye Irrit. 2A-Aquatic Acute 3;H227-H319-H402 |
| Geranyl acetate | 105-87-3 | 1-<5% | Skin Irrit. 2-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 3;H315-H317-H401-H412 |
| Coumarin | 91-64-5 | 1-<5% | Acute Tox. 4-Skin Sens. 1B-Aquatic Acute 3;H302-H317-H402 |

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| | | | |
|---|-----------|---------|--|
| 3-Phenyl-1-propanol | 122-97-4 | 1-<5% | Acute Tox. 5-Acute Tox. 5-Skin Corr. 1B-Eye Dam. 1-Aquatic Acute 3;H303-H313-H314-H402 |
| Methyl cinnamate | 103-26-4 | 1-<5% | Acute Tox. 5-Skin Sens. 1B-Aquatic Acute 2;H303-H317-H401 |
| Geranyl isobutyrate | 2345-26-8 | 1-<5% | Aquatic Acute 1-Aquatic Chronic 1;H410 |
| Citronellyl isobutyrate | 97-89-2 | 1-<5% | Aquatic Acute 2-Aquatic Chronic 2;H411 |
| alpha-Hexylcinnamaldehyde | 101-86-0 | 1-<5% | Acute Tox. 5-Skin Irrit. 3-Skin Sens. 1B-Aquatic Acute 1-Aquatic Chronic 2;H303-H316-H317-H400-H411 |
| Ethyl methylphenylglycidate | 77-83-8 | 0.1-<1% | Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 2;H317-H411 |
| 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran | 1222-05-5 | 0.1-<1% | Skin Irrit. 3-Aquatic Acute 1-Aquatic Chronic 1;H316-H410 |
| p-Methoxybenzaldehyde | 123-11-5 | 0.1-<1% | Acute Tox. 5-Repr. 2-Aquatic Acute 3-Aquatic Chronic 3;H303-H361-H412 |
| Allyl heptanoate | 142-19-8 | 0.1-<1% | Flam. Liq. 4-Acute Tox. 3-Acute Tox. 3-Aquatic Acute 1-Aquatic Chronic 2;H227-H301-H311-H400-H411 |
| alpha-Zingiberene | 495-60-3 | 0.1-<1% | Skin Sens. 1B;H317 |
| Piperonal | 120-57-0 | 0.1-<1% | Acute Tox. 5-Skin Sens. 1B-Repr. 2-Aquatic Acute 2;H303-H317-H361-H401 |
| Isocyclocitral | 1335-66-6 | 0.1-<1% | Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 3;H227-H303-H315-H319-H317-H401-H412 |
| Cinnamaldehyde | 104-55-2 | <0.1% | Acute Tox. 5-Acute Tox. 4-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1A-Aquatic Acute 1-Aquatic Chronic 2;H303-H312-H315-H319-H317-H400-H411 |

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.

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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

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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

| | |
|--|--------------------------------------|
| Appearance: | Free flowing liquid without sediment |
| Odour: | Characteristic |
| Odour threshold: | Not determined |
| Melting point / freezing point: | Not determined |
| Boiling point or initial boiling point and boiling range: | Not determined |
| Flammability: | Not determined |
| Lower and upper explosion limit: | Not determined |
| Flash point: | > 93 °C |
| Auto-ignition temperature: | Not determined |
| Decomposition temperature: | Not relevant |
| pH: | Not determined |
| Kinematic viscosity: | Not determined |
| Solubility: | Not determined |
| Partition coefficient: n-octanol/water (log value): | Not determined |
| Vapour pressure: | Not determined |
| Density and/or relative density: | 0.9470 - 0.9770 |
| Relative vapour density: | Not determined |
| Particle characteristics: | Not determined |

9.2 Other information:

| | |
|---------------------------|-----------------|
| Flash Point (Fahrenheit): | > 200 °F |
| Refractive Index @ 20C: | 1.4705 - 1.4805 |
| Calculated VOC: | 10.90 |

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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.

| | |
|---|--|
| 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 2 |
| 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

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| Ingredient | CAS | LD50/ATE Oral (mg/kg) | LD50/ATE Dermal (mg/kg) | LC50/ATE Inhalation | LC50 Route |
|--------------------------------|----------|--------------------------|----------------------------|------------------------|------------|
| 2-tert-Butylcyclohexyl acetate | 88-41-5 | 4600 | | | |
| 3-Phenyl-1-propanol | 122-97-4 | 2275 | 5000 | | |
| Allyl heptanoate | 142-19-8 | 218 | 810 | | |
| Coumarin | 91-64-5 | 500 | | | |
| Eugenol | 97-53-0 | 2500 | | | |
| Methyl cinnamate | 103-26-4 | 2610 | | | |
| alpha-Hexylcinnamaldehyde | 101-86-0 | 3100 | | | |
| alpha-Methylcinnamaldehyde | 101-39-3 | 2050 | | | |

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic 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: |
|-----------------------------|-----------------|---|-----------------------------------|-----------|---------------------|
| UN Model Regulations | UN3082 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-tert-Butylcyclohexyl acetate, Geranyl isobutyrate) | 9 | - | III |

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|--------------------|--------|--|---|---|-----|
| IMDG | UN3082 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-tert-Butylcyclohexyl acetate, Geranyl isobutyrate) MARINE POLLUTANT | 9 | - | III |
| ADR,RID,ADN | UN3082 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-tert-Butylcyclohexyl acetate, Geranyl isobutyrate) | 9 | - | III |
| ICAO TI | UN3082 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-tert-Butylcyclohexyl acetate, Geranyl isobutyrate) | 9 | - | III |

14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

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 applicable

Section 15. Regulatory information

Essential Oil Components:

| Name | CAS | % |
|-------------------|-----------------------|---------|
| Cinnamon leaf oil | 84649-98-9, 8015-91-6 | 1-<5% |
| Ginger oil | 84696-15-1, 8007-08-7 | 0.1-<1% |

Components listed on California's Proposition 65:

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

Naturally-Occuring Materials exempt from Prop65:

| Name | CAS | % |
|----------------------|----------|---|
| Eugenyl methyl ether | 93-15-2 | |
| Myrcene | 123-35-3 | |
| Safrole | 94-59-7 | |

Components listed on California's SB312

| Name | CAS | % |
|---------------------------|----------|---------|
| Di-(2-ethylhexyl) adipate | 103-23-1 | 20-<50% |
| Eugenol | 97-53-0 | 1-<5% |
| Coumarin | 91-64-5 | 1-<5% |
| alpha-Hexylcinnamaldehyde | 101-86-0 | 1-<5% |

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| | | |
|-----------------|----------|-------|
| Benzyl benzoate | 120-51-4 | <0.1% |
|-----------------|----------|-------|

Additional formulation properties

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

Section 16. Other information

Concentration % Limits: SCI 2=46.89% SCI 3=4.04% EDI 2A=37.18% SS 1=11.93% EH A2=14.03% EH A3=1.40% EH C2=53.33% EH C3=5.17% EH C4=54.52%

Total Fractional Values: SCI 2=2.13 SCI 3=24.74 EDI 2A=2.69 SS 1=8.38 EH A2=7.13 EH A3=71.55 EH C2=1.88 EH C3=19.36 EH C4=1.83

Key to revisions:

2.1 Classification of the substance or mixture

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

Key to abbreviations:

| 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. 4 | Acute Toxicity - Dermal 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 1 | Hazardous to the Aquatic Environment - Long-term Hazard Category 1 |
| 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 |
| Eye Dam. 1 | Eye Damage / Irritation Category 1 |
| Eye Irrit. 2A | Eye Damage / Irritation Category 2A |
| 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. |

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|--------------|--|
| H311 | Toxic in contact with skin. |
| H312 | Harmful in contact with skin. |
| H313 | May be harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H316 | Causes mild skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H361 | Suspected of damaging fertility or the unborn child (exposure route). |
| H400 | Very toxic to aquatic life. |
| H401 | Toxic to aquatic life. |
| H402 | Harmful to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat, sparks, open flames and hot surfaces. - No smoking. |
| P260 | Do not breathe vapour or dust. |
| 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. |
| P280 | Wear protective gloves/eye protection/face protection. |
| P281 | Use personal protective equipment as required. |
| 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. |
| P301/330/331 | If swallowed: Rinse mouth. Do not induce vomiting. |
| 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. |
| P308/313 | IF exposed or concerned: Get medical advice/attention. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P312 | Call a POISON CENTRE or doctor/physician if you feel unwell. |
| P330 | Rinse mouth. |
| 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. |

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| | |
|---------------|--|
| 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. |
| Repr. 2 | Toxic to Reproduction Category 2 |
| Skin Corr. 1B | Skin Corrosion / Irritation Category 1B |
| Skin Irrit. 2 | Skin Corrosion / Irritation Category 2 |
| Skin Irrit. 3 | Skin Corrosion / Irritation Category 3 |
| 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.