

# SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

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

### 1.1 Product Identifier

**Product identifier:** PEAR F20226(Contains:4-tert-Butylcyclohexyl acetate, Allyl cyclohexanepropionate, Allyl heptanoate, Geranyl 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:** Flammable Liquid, Hazard Category 4  
Acute Toxicity - Oral Category 5  
Skin Corrosion / Irritation Category 3  
Sensitization - Skin Category 1  
Hazardous to the Aquatic Environment - Acute Hazard Category 1  
Hazardous to the Aquatic Environment - Long-term Hazard Category 3  
H227, Combustible liquid.  
H303, May be harmful if swallowed.  
H316, Causes mild skin irritation.  
H317, May cause an allergic skin reaction.  
H400, Very toxic to aquatic life.  
H412, Harmful to aquatic life with long lasting effects.

### 2.2 Label elements

**Signal word:** Warning

**Hazard statements:** H227, Combustible liquid.  
H303, May be harmful if swallowed.

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## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

H316, Causes mild skin irritation.  
H317, May cause an allergic skin reaction.  
H400, Very toxic to aquatic life.  
H412, Harmful to aquatic life with long lasting effects.

**Precautionary statements:**

P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.  
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.  
P302/352, IF ON SKIN: Wash with plenty of soap and water.  
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.  
P333/313, If skin irritation or rash occurs: Get medical advice/attention.  
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.  
P363, Wash contaminated clothing before reuse.  
P391, Collect spillage.  
P403/235, Store in a well-ventilated place. Keep cool.  
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
Ethylene brassylate	105-95-3	10-<20%	Aquatic Acute 2-Aquatic Chronic 3;H401-H412
Phenethyl propionate	122-70-3	10-<20%	Acute Tox. 5-Aquatic Acute 3;H303-H402
2-tert-Butylcyclohexyl acetate	88-41-5	10-<20%	Acute Tox. 5-Skin Irrit. 3-Aquatic Acute 2-Aquatic Chronic 2;H303-H316-H411
gamma-Undecalactone	104-67-6	10-<20%	Aquatic Acute 2-Aquatic Chronic 3;H401-H412
2-Phenoxyethyl isobutyrate	103-60-6	10-<20%	Skin Irrit. 3-Aquatic Acute 3;H316-H402

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

Diethyl malonate	105-53-3	5-<10%	Flam. Liq. 4-Eye Irrit. 2A-Aquatic Acute 3;H227-H319-H402
Allyl heptanoate	142-19-8	5-<10%	Flam. Liq. 4-Acute Tox. 3-Acute Tox. 3-Aquatic Acute 1-Aquatic Chronic 2;H227-H301-H311-H400-H411
Hexyl acetate	142-92-7	1-<5%	Flam. Liq. 3-Skin Irrit. 3-Aquatic Acute 2;H226-H316-H401
Geranyl acetate	105-87-3	1-<5%	Skin Irrit. 2-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 3;H315-H317-H401-H412
Allyl cyclohexanepropionate	2705-87-5	1-<5%	Acute Tox. 4-Acute Tox. 4-Skin Sens. 1-Aquatic Acute 1-Aquatic Chronic 2;H302-H312-H317-H400-H411
4-tert-Butylcyclohexyl acetate	32210-23-4	1-<5%	Acute Tox. 5-Skin Sens. 1B-Aquatic Acute 2;H303-H317-H401
Neryl acetate	141-12-8	1-<5%	Skin Sens. 1B-Aquatic Acute 2;H317-H401
Dihydromyrcenol	18479-58-8	1-<5%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-STOT SE 3-Aquatic Acute 3;H227-H303-H315-H319-H336-H402
1,1-Dimethyl-2-phenylethyl acetate	151-05-3	1-<5%	Acute Tox. 5-Aquatic Acute 2;H303-H401
alpha-Hexylcinnamaldehyde	101-86-0	0.1-<1%	Acute Tox. 5-Skin Irrit. 3-Skin Sens. 1B-Aquatic Acute 1-Aquatic Chronic 2;H303-H316-H317-H400-H411
Dimethylcyclohex-3-ene-1-carbaldehyde (isomer unspecified)	27939-60-2	0.1-<1%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 2;H227-H303-H315-H319-H317-H411
Benzaldehyde	100-52-7	0.1-<1%	Flam. Liq. 4-Acute Tox. 4-Acute Tox. 5-Acute Tox. 4-Skin Irrit. 3-Eye Irrit. 2A-Repr. 2-STOT SE 3-Aquatic Acute 2-Aquatic Chronic 2;H227-H302-H313-H316-H319-H332-H335-H361d-H411
alpha-1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-2-buten-1-one	43052-87-5	0.1-<1%	Acute Tox. 4-Acute Tox. 5-Skin Sens. 1B-Aquatic Acute 1-Aquatic Chronic 1;H302-H313-H317-H410
Allyl (3-methylbutoxy)acetate	67634-00-8	0.1-<1%	Flam. Liq. 4-Acute Tox. 4-Acute Tox. 2-Skin Irrit. 2-Aquatic Acute 2;H227-H302-H315-H330-H401
Acetophenone	98-86-2	0.1-<1%	Acute Tox. 4-Eye Irrit. 2A-Repr. 2;H302-H319-H361
Citral	5392-40-5	0.1-<1%	Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1-Aquatic Acute 2;H315-H319-H317-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:** Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- 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

- May be harmful if swallowed.
- Causes mild skin irritation.
- May cause an allergic skin reaction.

# SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

## 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.

### 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.

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# SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

## 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
<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>	89 °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>	0.9570 - 0.9870
<b>Relative vapour density:</b>	Not determined
<b>Particle characteristics:</b>	Not determined

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

### 9.2 Other information:

Flash Point (Fahrenheit): 192 °F  
Refractive Index @ 20C: 1.4541 - 1.4641  
Color Range: 2 Very Pale Yellow - Colorless  
Calculated VOC: 37.40

### 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>	Acute Toxicity - Oral Category 5
Acute Toxicity Oral	2058
Acute Toxicity Dermal	>5000
Acute Toxicity Inhalation	Not Available
<b>Skin corrosion/irritation:</b>	Skin Corrosion / Irritation Category 3
<b>Serious eye damage/irritation:</b>	Based on available data the classification criteria are not met.
<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.

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

**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 (mg/kg)	LD50/ATE Dermal (mg/kg)	LC50/ATE Inhalation	LC50 Route
1,1-Dimethyl-2-phenylethyl acetate	151-05-3	3300			
2-tert-Butylcyclohexyl acetate	88-41-5	4600			
4-tert-Butylcyclohexyl acetate	32210-23-4	3370			
Allyl (3-methylbutoxy) acetate	67634-00-8	500		0.46	Dust/mist mg/l
Allyl cyclohexanepropionate	2705-87-5	380	1600		
Allyl heptanoate	142-19-8	218	810		
Dihydromyrcenol	18479-58-8	3020			
Phenethyl propionate	122-70-3	4000			

Refer to Sections 2 and 3 for additional information.

### Section 12. Ecological information

**12.1 Toxicity:**

Very toxic to aquatic life.

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

	<b>14.1 UN number:</b>	<b>14.2 UN Proper Shipping Name:</b>	<b>14.3 Transport hazard class</b>	<b>Sub Risk:</b>	<b>14.4 Packing Group:</b>
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## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

			(es):		
<b>UN Model Regulations</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Allyl heptanoate, 2-tert-Butylcyclohexyl acetate)	9	-	III
<b>IMDG</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Allyl heptanoate, 2-tert-Butylcyclohexyl acetate) MARINE POLLUTANT	9	-	III
<b>ADR,RID,ADN</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Allyl heptanoate, 2-tert-Butylcyclohexyl acetate)	9	-	III
<b>ICAO TI</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Allyl heptanoate, 2-tert-Butylcyclohexyl acetate)	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

#### Components listed on California's SB312

Name	CAS	%
2-Phenoxyethyl isobutyrate	103-60-6	10-<20%
alpha-Hexylcinnamaldehyde	101-86-0	0.1-<1%
Acetophenone	98-86-2	0.1-<1%
Citral	5392-40-5	0.1-<1%

### Section 16. Other information

**Concentration % Limits:** SCI 3=11.15% SS 1=25.00% EH A1=33.62% EH A2=3.16% EH A3=0.31423951% EH C3=9.43% EH C4=49.90%

**Total Fractional Values:** SCI 3=8.97 SS 1=4.00 EH A1=2.97 EH A2=31.69 EH A3=318.23 EH C3=10.61 EH C4=2.00

**Key to revisions:**

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

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

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. 2	Acute Toxicity - Inhalation Category 2
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. 4	Acute Toxicity - Inhalation 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 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.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful 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.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child (exposure route).
H361d	Suspected of damaging the unborn child.

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

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.
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.
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.
P271	Use only outdoors or in a well-ventilated area.
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.
P284	Wear respiratory 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.
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.
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.

## SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** PEAR F20226

**Version:** 2

P403/233/235	Store in a well-ventilated place. Keep container tightly closed. Keep cool.
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 2d
Repr. 2	Toxic to Reproduction Category 2
STOT SE 3	Specific Target Organ Toxicity (Single Exposure) Category 3
STOT SE 3	Specific Target Organ Toxicity (Single Exposure) Category 3
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.