

# SAFETY DATA SHEET

In accordance with UN GHS latest edition

**Product:** Pear Flavor 332963

**Version:** 1

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

### 1.1 Product Identifier

**Product identifier:** Pear Flavor 332963(Contains:4-Hydroxy-2,5-dimethyl-3(2H)-furanone)

**Other identifiers:** None

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

**Product uses:** Flavours

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

**Company name:** Perfumer's Apprentice

**Company address:** 170 Technology Circle  
Scotts Valley  
CA 95066  
USA

**Contact:** Elisabeth Hanson

**E-Mail address:** regulatory@perfumersapprentice.com

**Company phone:** (831)316-7137

### 1.4 Emergency telephone number

**Emergency phone:** ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

**Class and category of danger:** Flammable Liquid, Hazard Category 3  
Eye Damage / Irritation Category 2A  
Sensitization - Skin Category 1  
Carcinogenicity Category 1A  
H226, Flammable liquid and vapour.  
H317, May cause an allergic skin reaction.  
H319, Causes serious eye irritation.  
H350, May cause cancer (exposure route).

### 2.2 Label elements

**Signal word:** Danger

**Hazard statements:** H226, Flammable liquid and vapour.  
H317, May cause an allergic skin reaction.  
H319, Causes serious eye irritation.  
H350, May cause cancer (exposure route).

**Precautionary statements:** 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.

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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.  
 P272, Contaminated work clothing should not be allowed out of the workplace.  
 P280, Wear protective gloves/eye protection/face protection.  
 P303/361/353, IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.  
 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.  
 P333/313, If skin irritation or rash occurs: Get medical advice/attention.  
 P337/313, If eye irritation persists: Get medical advice/attention.  
 P363, Wash contaminated clothing before reuse.  
 P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.  
 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.

**Pictograms:**



### 2.3 Other hazards

**Other hazards:** Hydrocarbon Concentration %: 0.0000%

## Section 3. Composition / information on ingredients

### 3.2 Mixtures

**Contains:**

Name	CAS	%	GHS Classification
cis-3-Hexenyl butyrate	16491-36-4	1-5%	Flam. Liq. 4-Skin Irrit. 3;H227-H316
5-Methylfurfural	620-02-0	1-5%	Flam. Liq. 4-Acute Tox. 5;H227-H303
Ethyl acetate	141-78-6	1-5%	Flam. Liq. 2-Eye Irrit. 2A-STOT SE 3;H225-H319-H336
Benzyl benzoate	120-51-4	<1%	Acute Tox. 4-Acute Tox. 5-Aquatic Acute 1-Aquatic Chronic 2;H302-H313-H400-H411
Amyl alcohol	71-41-0	<1%	Flam. Liq. 3-Acute Tox. 5-Acute Tox. 5-Acute Tox. 4-Skin Irrit. 2-Eye Irrit. 2A-STOT SE 3;H226-H303-H313-H315-H319-H332-H335

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Butyric acid	107-92-6	<1%	Flam. Liq. 4-Acute Tox. 4-Skin Corr. 1B-Eye Dam. 1-Aquatic Acute 3;H227-H302-H314-H402
Acetaldehyde	75-07-0	<1%	Flam. Liq. 1-Flam. Liq. 2-Eye Irrit. 2A-Carc. 2-STOT SE 3;H224-H225-H319-H335-H351
Linalool	78-70-6	<1%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Aquatic Acute 3;H227-H303-H315-H319-H402
4-Hydroxy-2,5-dimethyl-3(2H)-furanone	3658-77-3	<1%	Acute Tox. 4-Eye Dam. 1-Skin Sens. 1A;H302-H317-H318
alpha-Terpineol	98-55-5	<1%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Aquatic Acute 2;H227-H303-H315-H319-H401
Ethyl butyrate	105-54-4	<1%	Flam. Liq. 3-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-STOT SE 3;H226-H303-H315-H319-H335

### 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 (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

**Ingestion:** Rinse mouth with water and obtain medical attention.

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

May cause an allergic skin reaction.

Causes serious eye irritation.

May cause cancer (exposure route).

### 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.

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### 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.

#### **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):**

Flavours: 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.

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### Section 9. Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

<b>Appearance:</b>	Not determined
<b>Odour:</b>	Not determined
<b>Odour threshold:</b>	Not determined
<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>	43.88 °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>	Not determined
<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
<b>9.2 Other information:</b>	None available

### 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.

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## 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	Not Applicable
Acute Toxicity Inhalation	Not Available
<b>Skin corrosion/irritation:</b>	Based on available data the classification criteria are not met.
<b>Serious eye damage/irritation:</b>	Eye Damage / Irritation Category 2A
<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>	Carcinogenicity Category 1A
<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	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
5-Methylfurfural	620-02-0	2200	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

## Section 12. Ecological information

<b>12.1 Toxicity:</b>	Not available
<b>12.2 Persistence and degradability:</b>	Not available
<b>12.3 Bioaccumulative potential:</b>	Not available
<b>12.4 Mobility in soil:</b>	Not available
<b>12.5 Other adverse effects:</b>	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.

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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>	UN1197	EXTRACTS, LIQUID	3	-	III
<b>IMDG</b>	UN1197	EXTRACTS, LIQUID	3	-	III
<b>ADR,RID,ADN</b>	UN1197	EXTRACTS, LIQUID	3	-	III
<b>ICAO TI</b>	UN1197	EXTRACTS, LIQUID	3	-	III

**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 applicable

### Section 15. Regulatory information

None additional

### Section 16. Other information

**Concentration % Limits:** SCI 3=13.86% SS 1=38.10% EH A3=39.68%

**Total Fractional Values:** SCI 3=7.22 SS 1=2.63 EH A3=2.52

**Key to revisions:**

Not applicable

**Key to abbreviations:**

Abbreviation	Meaning
Acute Tox. 4	Acute Toxicity - Oral 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 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
Carc. 2	Carcinogenicity Category 2

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Eye Dam. 1	Eye Damage / Irritation Category 1
Eye Irrit. 2A	Eye Damage / Irritation Category 2A
Flam. Liq. 1	Flammable Liquid, Hazard Category 1
Flam. Liq. 2	Flammable Liquid, Hazard Category 2
Flam. Liq. 3	Flammable Liquid, Hazard Category 3
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H227	Combustible liquid.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer (exposure route).
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.
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.
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.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.



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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.
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.
P403/233/235	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.
STOT SE 3	Specific Target Organ Toxicity (Single Exposure) Category 3
STOT SE 3	Specific Target Organ Toxicity (Single Exposure) Category 3
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

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.