SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Almond Amaretto Flavor 341620
Version: 4

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

1.1 Product Identifier
Product identifier: Almond Amaretto Flavor 341620
Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against
Product uses: Flavours, Fragrances

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

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Eye Damage / Irritation Category 2
H319, Causes serious eye irritation.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: Warning
Hazard statements: H319, Causes serious eye irritation.
Supplemental Information: EUH208, Contains Dihydrocoumarin. May produce an allergic reaction.
Precautionary statements: P264, Wash hands and other contacted skin thoroughly after handling.
P280, Wear protective gloves/eye protection/face protection.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337/313, If eye irritation persists: Get medical advice/attention.
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Pictograms:

2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>EC</th>
<th>REACH Registration No.</th>
<th>%</th>
<th>Classification for (CLP) 1272/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzaldehyde</td>
<td>100-52-7</td>
<td>202-860-4</td>
<td></td>
<td>1-10%</td>
<td>Acute Tox. 4-Acute Tox. 4-Eye Irrit. 2-STOT SE 3:H302-H319-H332-H335-</td>
</tr>
<tr>
<td>Dihydrocoumarin</td>
<td>119-84-6</td>
<td>204-354-9</td>
<td></td>
<td>&lt;1%</td>
<td>Acute Tox. 4-Skin Sens. 1B:H302-H317-</td>
</tr>
</tbody>
</table>

Substances with Community workplace exposure limits:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>EC</th>
<th>REACH Registration No.</th>
<th>%</th>
<th>Classification for (CLP) 1272/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl acetate</td>
<td>141-78-6</td>
<td>205-500-4</td>
<td></td>
<td>&lt;1%</td>
<td>Flam. Liq. 2-Eye Irrit. 2-STOT SE 3:H225-H319-H336.EUH066</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>200-338-0</td>
<td></td>
<td>90-99%</td>
<td>-,-,-</td>
</tr>
</tbody>
</table>

Substances that are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative, greater than 0.1%:
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: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.
Ingestion: Rinse mouth with water and obtain medical attention.
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4.2 Most important symptoms and effects, both acute and delayed
Causes serious eye irritation.

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: Water

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
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precautionary measures against static discharge.

7.3 Specific end use(s):
Flavours, Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters
Workplace exposure limits:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS</th>
<th>EC</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl acetate</td>
<td>141-78-6</td>
<td>205-500-4</td>
<td>UK WEL Long term ppm</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>UK WEL Short term ppm</td>
<td>400</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>200-338-0</td>
<td>UK WEL Long term mgm3</td>
<td>474</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>UK WEL Long term ppm</td>
<td>150</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls
Eye / Skin Protection
Wear protective gloves/eye protection/face protection

Respiratory Protection
Ensure adequate and ongoing ventilation is maintained in order to prevent build up of excessive vapour and to ensure occupational exposure limits are adhered to. If appropriate, and depending on your patterns and volumes of use, the following engineering controls may be required as additional protective measures: a) Isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. b) Employ the use of Personal protective equipment - an approved, properly fitted respirator with organic vapour cartridges or canisters and particulate filters. c) Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. d) 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: Liquid, Transparent
Odour: Almond Amaretto
Odour threshold: Not determined
pH: Not determined
Melting point / freezing point: Not determined

Perfumer’s Apprentice, 170 Technology Circle, Scotts Valley, CA, 95066, USA
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Initial boiling point / range: 185 °C
Flash point: 68.5 °C
Evaporation rate: Not determined
Flammability (solid, gas): Not determined
Upper/lower flammability or explosive limits: Product does not present an explosion hazard
Vapour pressure: 0.100000
Vapour density: Not determined
Relative density: 1.0233
Solubility(ies): Soluble in water.
Partition coefficient: n-octanol/water: Not determined
Auto-ignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: Not determined
Explosive properties: Not expected
Oxidising properties: Not expected

9.2 Other information: 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.

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 Regulation (EC) No 1272/2008 (CLP).

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

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS</th>
<th>EC</th>
<th>LD50/ATE Oral</th>
<th>LD50/ATE Dermal</th>
<th>LC50/ATE Inhalation</th>
<th>LC50 Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzaldehyde</td>
<td>100-52-7</td>
<td>202-860-4</td>
<td>1430</td>
<td>Not available</td>
<td>1.5</td>
<td>Dust/mist</td>
</tr>
</tbody>
</table>

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 Results of PBT and vPvB assessment:
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.
12.6 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: Not classified
14.2 UN Proper Shipping Name: -
14.3 Transport hazard class(es):
Sub Risk: Not classified
14.4. Packing Group: Not classified
14.5 Environmental hazards: Not environmentally hazardous for transport
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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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
None additional

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Classification under Regulation (EC) No 1272/2008
Information about hazardous ingredients in the mixture
SECTION 3: Composition/information on ingredients
Workplace exposure limits

Key to abbreviations:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4</td>
<td>Acute Toxicity - Oral Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4</td>
<td>Acute Toxicity - Inhalation Category 4</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Eye Damage / Irritation Category 2</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>P261</td>
<td>Avoid breathing vapour or dust.</td>
</tr>
<tr>
<td>P264</td>
<td>Wash hands and other contacted skin thoroughly after handling.</td>
</tr>
<tr>
<td>P270</td>
<td>Do not eat, drink or smoke when using this product.</td>
</tr>
<tr>
<td>P271</td>
<td>Use only outdoors or in a well-ventilated area.</td>
</tr>
<tr>
<td>P272</td>
<td>Contaminated work clothing should not be allowed out of the workplace.</td>
</tr>
<tr>
<td>P280</td>
<td>Wear protective gloves/eye protection/face protection.</td>
</tr>
<tr>
<td>P301/312</td>
<td>IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.</td>
</tr>
<tr>
<td>P302/352</td>
<td>IF ON SKIN: Wash with plenty of soap and water.</td>
</tr>
<tr>
<td>P304/340</td>
<td>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</td>
</tr>
<tr>
<td>P305/351/338</td>
<td>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
</tr>
<tr>
<td>P312</td>
<td>Call a POISON CENTRE or doctor/physician if you feel unwell.</td>
</tr>
<tr>
<td>P330</td>
<td>Rinse mouth.</td>
</tr>
<tr>
<td>P333/313</td>
<td>If skin irritation or rash occurs: Get medical advice/attention.</td>
</tr>
</tbody>
</table>
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P337/313 If eye irritation persists: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
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 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.