1. Product and Company Identification

| Product Code:     | 343304          |
| Product Name:    | Horehound Flavor |
| Trade Name:      | Horehound Flavor |
| Company Name:    | Perfumer's Apprentice |
|                  | 170 Technology Circle |
|                  | Scotts Valley, CA 95066 |
| Phone Number:    | (831)316-7137   |
| Web site address:| Perfumersapprentice.com |
| Emergency Contact: | Chem-Tel Phone |
|                  | (800)255-3924 |
|                  | 01 (813)248-0585 |
| Information:     | Contract #: MIS6760377 |

2. Hazards Identification

Flammable Liquids, Category 3
Serious Eye Damage/Eye Irritation, Category 1
Skin Corrosion/Irritation, Category 3

GHS Signal Word: Danger
GHS Hazard Phrases: Flammable liquid and vapor.
Causes mild skin irritation.
Causes serious eye damage.

GHS Precaution Phrases: Keep away from {heat/sparks/open flames/hot surfaces}. - No smoking.
Keep container tightly closed.
Use explosion-proof electrical/ventilating/lighting/...equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.

GHS Response Phrases: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
If skin irritation occurs, get medical advice/attention.

GHS Storage and Disposal Phrases: Store in cool/well-ventilated place.
Dispose of contents/container to {...}.

Potential Health Effects (Acute and Chronic):

Inhalation: May be harmful if inhaled.
Skin Contact: May cause skin irritation.
Eye Contact: May cause eye irritation.
Ingestion: May be harmful if inhaled.
3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>57-55-6</td>
<td>Propylene glycol</td>
<td>81.0 - 87.0 %</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Emergency and First Aid Procedures:

In Case of Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen.

In Case of Skin Contact: In case of contact, flush skin with plenty of water.

In Case of Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

In Case of Ingestion: Clean mouth with water and drink plenty of water.

Note to Physician: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

5. Fire Fighting Measures

Flash Pt: 52.20 C Method Used: Closed Cup

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

Suitable Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

Fire Fighting Instructions: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Flammable Properties and Hazards: No data available.

Hazardous Combustion Products: No data available.

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures: Ensure adequate ventilation.

Steps To Be Taken In Case Material Is Released Or Spilled: Dike to collect large liquid spills.

7. Handling and Storage

Precautions To Be Taken in Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing.

Precautions To Be Taken in Storing: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>57-55-6</td>
<td>Propylene glycol</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>
Respiratory Equipment (Specify Type): A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Eye Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Protective Gloves: Wear appropriate protective gloves to prevent skin exposure.

Other Protective Clothing: Wear appropriate protective clothing to prevent skin exposure.

Engineering Controls (Ventilation etc.): Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### 9. Physical and Chemical Properties

**Physical States:**
- [ ] Gas
- [X] Liquid
- [ ] Solid

**Appearance and Odor:** Clear Colorless. Horehound taste and aroma.

**pH:** No data.

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** 52.20 C Method Used: Closed Cup

**Evaporation Rate:** No data.

**Flammability (solid, gas):** No data available.

**Explosive Limits:**
- LEL: No data.
- UEL: No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Specific Gravity (Water = 1):** 0.9630 at 22.0 C

**Solubility in Water:** No data.

**Octanol/Water Partition Coefficient:** No data.

**Autoignition Pt:** No data.

**Decomposition Temperature:** No data.

**Viscosity:** No data.

### 10. Stability and Reactivity

**Stability:** Unstable [ ] Stable [X]

**Conditions To Avoid - Instability:** No data available.

**Incompatibility - Materials To Avoid:** No data available.

**Hazardous Decomposition or Byproducts:** No data available.

**Possibility of Hazardous Reactions:**
- Will occur [ ]
- Will not occur [X]

**Conditions To Avoid - Hazardous Reactions:** No data available.
11. Toxicological Information

Toxicological Information: This mixture has not been subjected to toxicological testing but has been blended from materials with established toxicological bibliographies. In view of the difficulty of using current standard toxicological evaluation techniques to predict potential hazards to susceptible individuals or arising from unforeseeable potentiation, this preparation should be considered and handled as if it displayed health hazards and consequently treated with all possible precaution.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

General Ecological Information: This mixture as a whole has not been subjected to ecotoxicological testing. In view of the difficulty of using current standard ecotoxicological evaluation techniques to predict the impact of particular modes of release on vulnerable or localized parts of the ecosystem, this preparation should be considered and handled as if it displayed potential environmental hazards, and treated in consequence with all possible precaution.

13. Disposal Considerations

Waste Disposal Method: This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

14. Transport Information

GHS Classification: Flammable Liquids, Category 3 - Warning! Flammable liquid and vapor
Serious Eye Damage/Eye Irritation, Category 1 - Danger! Causes serious eye damage
Skin Corrosion/Irritation, Category 3 - Warning! Causes mild skin irritation

LAND TRANSPORT (US DOT):
- DOT Proper Shipping Name: Extracts, Flavoring, Liquid.
- DOT Hazard Class: 3 FLAMMABLE LIQUID
- UN/NA Number: 1197 Packing Group: III

LAND TRANSPORT (Canadian TDG):
- TDG Shipping Name: Extracts, Flavoring, Liquid.

LAND TRANSPORT (European ADR/RID):
- ADR/RID Shipping Name: Extracts, Flavoring, Liquid.
- UN Number: 1197 Packing Group: III
- Hazard Class: 3 - FLAMMABLE LIQUID

MARINE TRANSPORT (IMDG/IMO):
- IMDG/IMO Shipping Name: Extracts, Flavoring, Liquid.

AIR TRANSPORT (ICAO/IATA):
- ICAO/IATA Shipping Name: Extracts, Flavoring, Liquid.
15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>S. 302 (EHS)</th>
<th>S. 304 RQ</th>
<th>S. 313 (TRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>57-55-6</td>
<td>Propylene glycol</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections as indicated:

- [X] Yes  [ ] No  Acute (immediate) Health Hazard
- [ ] Yes  [X] No  Chronic (delayed) Health Hazard
- [X] Yes  [ ] No  Fire Hazard
- [ ] Yes  [X] No  Sudden Release of Pressure Hazard
- [ ] Yes  [X] No  Reactive Hazard

Other US EPA or State Lists

<table>
<thead>
<tr>
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<th>Hazardous Components (Chemical Name)</th>
<th>Other US EPA or State Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>57-55-6</td>
<td>Propylene glycol</td>
<td>CA PROP.65: No</td>
</tr>
</tbody>
</table>

REACH: Yes - (R), (P)

16. Other Information

Revision Date: 12/10/2015

Additional Information About This Product:
This product contains no added diacetyl as an ingredient. However, because diacetyl can occur in small amounts as an artifact of the production process in other ingredients, "No Added Diacetyl" products may not be "Diacetyl Free", as trace amounts may be present.

Company Policy or Disclaimer:
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any other process, unless specified in the text.