SAFETY DATA SHEET

Issue Date 09-Jun-2016  Revision Date 09-Jun-2016  Version 1

1. IDENTIFICATION

Product identifier
Product Name HallGreen(R) PSE

Other means of identification
Product Code S103
Synonyms Phytosterol Esters (Soybean)

Recommended use of the chemical and restrictions on use
Recommended Use Ingredient for Cosmetics.

Details of the supplier of the safety data sheet
Supplier Address The HallStar Company 120 S. Riverside Plaza, Suite 1620 Chicago, IL 60606 USA
Manufacturer Address

Emergency telephone number
Company Phone Number (708) 594-5999
Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification
OSHA Regulatory Status This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label elements

Emergency Overview

Appearance clear pale yellow oily liquid  Physical state liquid  Odor Slight

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Synonyms Phytosterol Esters (Soybean).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>β-sitosterol</td>
<td>83-46-5</td>
<td>46</td>
<td>*</td>
</tr>
<tr>
<td>Campesterol</td>
<td>474-62-4</td>
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<tr>
<td>Stigmasterol</td>
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<td>23</td>
<td>*</td>
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<tr>
<td>Sunflower Seed Oil Glyceride</td>
<td>91723-14-7</td>
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<td>*</td>
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<td>Brassicasterol</td>
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<td>*</td>
</tr>
<tr>
<td>D-alpha tocopherol</td>
<td>59-02-9</td>
<td>1</td>
<td>*</td>
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</table>
Chemical Additions
This product is intended for uses that are regulated by the Food and Drugs Administration in the United States of America. It contains ingredients that are not listed on the TSCA inventory and therefore, must only be used in FDA regulated applications. This product has no proprietary ingredients.

4. FIRST AID MEASURES

**Description of first aid measures**

**Eye contact**
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact**
Wash skin with soap and water.

**Inhalation**
Remove to fresh air.

**Ingestion**
Clean mouth with water and drink afterwards plenty of water.

5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
Dry chemical. Foam. Water spray (fog).

**Specific hazards arising from the chemical**
No information available.

**Hazardous combustion products**
Development of hazardous combustion gases or vapours possible in the event of fire.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**
See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for containment**
Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling**
Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**
Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible materials**
None known based on information supplied.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Controls
Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear protective gloves and protective clothing.

Respiratory protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
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</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>clear pale yellow oily liquid</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>light yellow</td>
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</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
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<td>Odor threshold</td>
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<tr>
<td>pH</td>
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</tr>
<tr>
<td>Melting point / freezing point</td>
<td>50 °C</td>
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<tr>
<td>Boiling point / boiling range</td>
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<tr>
<td>Flash point</td>
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<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>Flammability (solid, gas)</td>
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</tr>
<tr>
<td>Flammability Limit in Air</td>
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<tr>
<td>Upper flammability limit:</td>
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<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
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<tr>
<td>Vapor pressure</td>
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<td></td>
</tr>
<tr>
<td>Vapor density</td>
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<tr>
<td>Relative density</td>
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<tr>
<td>Water solubility</td>
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<td>Solubility in other solvents</td>
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<tr>
<td>Partition coefficient</td>
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<tr>
<td>VOC Content (%)</td>
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<td></td>
</tr>
<tr>
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<tr>
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<tr>
<td>Volatility</td>
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</table>

10. STABILITY AND REACTIVITY

Reactivity
No data available
11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information
No data available

   Inhalation
   No data available.

   Eye contact
   No data available.

   Skin contact
   No data available.

   Ingestion
   No data available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

   Sensitization
   No information available.

   Germ cell mutagenicity
   No information available.

   Carcinogenicity
   No information available.

   Reproductive toxicity
   No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Do not reuse container.

14. TRANSPORT INFORMATION
15. REGULATORY INFORMATION

This product is for end uses that are covered under US FDA applications only (cosmetic ingredient).

International Inventories

<table>
<thead>
<tr>
<th>Inventory Name</th>
<th>Status</th>
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<tr>
<td>TSCA</td>
<td>Complies</td>
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<tr>
<td>DSL/NDSL</td>
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<tr>
<td>EINECS/ELINCS</td>
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<tr>
<td>ENCS</td>
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</tr>
<tr>
<td>IECSC</td>
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<tr>
<td>KECL</td>
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</tr>
<tr>
<td>PICCS</td>
<td></td>
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<tr>
<td>AICS</td>
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</tr>
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</table>

**Legend:**
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

US Federal Regulations

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

- Acute health hazard: No
- Chronic Health Hazard: No
- Fire hazard: No
- Sudden release of pressure hazard: No
- Reactive Hazard: No

**CWA (Clean Water Act)**

**CERCLA**

**US State Regulations**

**California Proposition 65**
This product does not contain any Proposition 65 chemicals
U.S. State Right-to-Know Regulations

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<table>
<thead>
<tr>
<th>Issue Date</th>
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<tr>
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<td>09-Jun-2016</td>
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Disclaimer
The information provided in this Material Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet